State of North Carolina
E-Procurement Due Diligence
Final Report

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accenture

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EXECUTIVE SUMMARY

The State of North Carolina has made a significant commitment, both with people and financial resources, to establish a leadership position in e-government and to more effectively serve the citizens, businesses and state employees. To date, the results of this increased commitment have been positive. The State has established an award winning enterprise portal and a number of common infrastructure components: service broker, credit card processing, security, and electronic forms. These common services have been used as a building block for new successes - the *NC @ Your Service* portal, Division of Motor Vehicles Registration Renewal System and the many citizen-centric services, which will follow.

As the adoption of e-government capabilities progresses in the State, a comprehensive business infrastructure (ERP) is the logical first step for supporting the technological requirements of e-commerce. State government must not lose sight of this goal and strategy and its need for a comprehensive system to manage various financial functions (accounting, budget, cash management, treasury, human resources, payroll, etc.), both for efficient processing and for effective statewide reporting. As mentioned later in this Due Diligence report "an organization's ERP systems represent their central nervous system, a backbone for critical managerial and operational information flow and processes".

Why e-procurement now?

Because of the solid foundation it has established in the development of e-government, the State is well positioned to implement an e-procurement service as a major step toward a more standard business infrastructure. The service will provide the following benefits:

- It will reduce prices through the aggregation of demand by consolidating purchases of like items from governmental agencies and the better management of statewide and agency contracts.
- It will enable processing efficiencies and associated cost savings for State Government.
- It will offer operating efficiencies to vendors through the electronic exchange of purchasing and payment information.
- It will facilitate the ability of small, minority, and under-utilized vendors to offer goods to the State and other markets.
- It will provide funds for supporting the e-government technical infrastructure that has been created.
- No additional appropriations will be required to implement and operate the service.

Funding for the service, including integration with financial systems, software, training, and support costs will be provided from a minimum 1-2% supplier fee for goods purchased with the service. Financing for implementation is provided through the public/private partnership with Accenture, formerly known as Andersen Consulting. The service will be implemented over three years with a four year business model and a total budget of approximately $60 million.

Background

The e-procurement business model was made possible from a provision in the portal/project office contract which was obtained through an open bid process. Per that contract, Accenture performed a due diligence study assessing the feasibility of the model. The Due Diligence Study concludes that the State is positioned to successfully exercise the self-funding model.

North Carolina's Purchasing Environment

Accenture estimates that North Carolina currently spends over a billion dollars per year for goods expected to be processed by a statewide e-procurement service. State agencies, state universities, community colleges, local education authorities, and local and county governments are included in the scope of this spend.

Current purchasing processes include many manual and paper intensive steps, which can add a considerable number of days to the buying cycle time and costs to the overall process. E-Procurement consolidates, automates and applies online business rules reducing buying cycle times and producing administrative cost savings.

Purchasing rules are complex and North Carolina currently uses few automated tools for assistance in complying with these rules. E-Procurement systems provide online computer processes resulting in consistent application of business rules, including purchases through pre-approved catalogs. According to Gartner Group, significant savings can be realized by re-engineering processes, increasing rules compliance and using preferred suppliers**.**

Buyers currently spend a high percentage of their time on clerical activities. Building automated approval flows and business rules removes the burden from buyers and re-focuses attention on negotiating deals and resolving high complexity and high consequence procurements.

A statewide e-procurement system provides valuable spend data. Current business systems are limited in statewide purchasing data collection and reporting capabilities; therefore, information necessary to negotiate fact-based volume discounts with suppliers is incomplete.

Based on the North Carolina Accounting System (NCAS), average elapsed time from requisition to purchase order issue is 3 days for term contract goods and 5 days for non-term contract goods. 85,800 purchase orders for goods are issued through this system annually. It is estimated that in excess of 572,000 purchase orders for goods are processed by the State annually across the North Carolina enterprise.

Due Diligence: Making the Case

The due diligence effort was a significant undertaking that lasted approximately sixteen weeks. The project team performed extensive analysis to provide factual data that forms the foundation for a solid business case. Some of the major tasks performed included:

- Collected spend data from various sources including NCAS, DOT, Universities, Community Colleges, LEAs, and local and county government.
- Collected term contract and agency convenience contract information.
- Documented current purchasing processes at selected agencies.
- Conducted Focus Group sessions with requestors, approvers, and buyers to gather feedback on the current process and suggestions for the new process.
- Collected Functional Requirements.
- Developed a high level conceptual design for integration from e-procurement system to the state's financial systems.
- Conducted research on e-procurement software packages as they related to the state's requirements.
- Collected cost estimates for representative software vendors and the implementation effort which would be required to implement each.
- Collected responses to the Functional Requirements from representative software vendors.
- Participated in the software vendor product/solution demonstrations.
- Developed an implementation workplan.
- Developed a spend data model which will become a part of the e-procurement business case and plan.

Through this analysis, the project team concluded that the State and related entities will produce sufficient spend for goods over a four year period to support a self-funded model. The spend data does not include the purchase of services.

A four year estimate of the project reveals an expected total cost of ownership over that period of approximately $60 million. Given this spend and the agreed to cost estimate, a business model was developed with a supplier fee that is consistent with those being charged in the public sector marketplace.

The Business Model: A New Way of Doing Business

The State of North Carolina E-Procurement Business Model is a self-funding, public/private partnership between the State of North Carolina and Accenture. Accenture will provide the infrastructure investment required to establish the e-procurement system. The e-procurement service will be run like a business and be governed by an Operating Committee, consisting of personnel from the Office of Information Technology Services, the Department of Administration, and the Office of State Controller.

The State will agree to a planned level of yearly spend, revenue, and costs at the outset of the project. Revenue will be generated through a minimum 1-2% supplier fee, based on the purchase order amount. This fee covers the implementation and operation of the e-procurement service and the statewide portal.

State agencies, state universities, community colleges, and local education authorities will participate. Local and county governments are invited to participate and have indicated interest in participating. By participating, all of these entities can share in process and price savings. Their participation will increase the volume discounts shared by all participants.

The State and Accenture will guarantee a level of revenue to be generated and will assume the shared risk of revenue shortfall below this level. If revenue exceeds this level, the excess will be shared between the State and Accenture according to a formula that increases the State's share as the excess increases. By current State statutes, excess revenues over expenditures may be used by agencies to assist in implementing e-government services for citizens and businesses.

Everyone Benefits

The benefits of this approach are many. Some benefits for the State are as follows:

- No new state appropriated funds for implementation and operation of the e-procurement service
- Significant improvements to business processes resulting in cost savings
- Fiscal support for statewide portal
- Potential long-term funding source for agency e-government initiatives
- Economic development to small North Carolina businesses by facilitating their entry into larger marketplaces
- Direct agency savings in addition to self funding e-procurement service
- Collection and reporting of data useful in managing the state's statewide and agency contracts to leverage buying power for deeper discounts
- Enables agency process cost savings
- Improved standardization with the State's purchasing rules

Benefits for the suppliers are as follows:

- Access to a larger marketplace. Easy access to State Agencies, Universities, Community Colleges, Local Education Authorities and local governments could result in more orders and increased sales for suppliers. Small suppliers may be able to expand into previously untapped markets.
- Online self-registration for new vendors and self maintained vendor registration functionality.
- Improved business process for order receipt. Electronic orders will be sent to suppliers which will reduce cycle times and improve their business process, because hand keying of orders will be eliminated.
- More accurate orders. Electronic transmission and more timely order processing may result in more accurate orders and less returns.
- The procurement card (p-card) usage can be accommodated in the new e-procurement system with greatly improved controls and reporting capabilities.
- Improved automated quoting and bidding processes will result in simpler and more consistent requests.
- Improved information and reporting. Monthly statements will summarize transaction volume and over time enable suppliers to better plan for demand.
- Resulting membership in the North Carolina marketplace can expand beyond the borders of the State. Suppliers who have catalogs in North Carolina will be prepared to perform business electronically in other marketplaces for other states and private sector businesses.
- Bid and Contract information on-line results in more supplier self-service. Suppliers will benefit from easier methods to gather information and perform market research through online queries and downloads.

Managing the Risks

This large-scale e-procurement initiative presents a variety of economic, system implementation, technical, and organizational risks. Major risks and associated mitigation strategies are highlighted in the table below:

Risk	Mitigation Strategy
1. Vendor resistance to change, including fees	■ Explain and market benefits to suppliers
2. Vendors may increase price to offset fees	■ Service provides information to aggregate buying power and leverage negotiations ■ Explain and market the benefits and cost savings from the electronic process

Risk	Mitigation Strategy
3. Business model not met	■ Monthly monitoring and action as appropriate
4. Lack of support by governing organizations	■ Development of a working partnership with the organizations ■ Regular monitoring and oversight ■ Regular status reporting of the project
5. Implementation schedule slippage	■ Weekly monitoring by the project manager ■ Regular monitoring by the Operations Committee ■ Regular monitoring and enforcement by the project manager of the firm deliverables and due dates established in the contract with specific remedies for slippage

Selecting the Software

As part of the e-procurement Due Diligence effort, Accenture was required to identify an e-procurement solution. Three software products were assessed: Ariba (teamed with Epylon Corporation), SAP (using Commerce One e-procurement software) and Metiom. Accenture based its selection criteria on the business requirements of the State of North Carolina and key best practices in the e-procurement marketplace. After consultation with the State, Accenture selected Ariba/Epylon as the e-procurement toolset for the project.

Conclusions

After concluding the due diligence phase:

1. The data supports the conclusion that the State is positioned to successfully exercise the e-procurement self-funding model.
2. The Due Diligence Study supports a need for an e-procurement Operating Committee to monitor and manage the risks associated with the e-procurement service, establish and reinforce policies for statewide use of the system, promote fair and consistent supplier relations, and support basic principles of public purchasing. This operating committee will work closely with suppliers and participating governmental entities, oversee implementation activities, and encourage buying through the system.

FUNCTIONALITY OVERVIEW

The State of North Carolina has specific needs that must be addressed by the e-procurement system. A team of e-procurement specialists have been studying the buying data, purchasing rules and processes, integration requirements, and the technical needs in the State for the past several months as part of the e-procurement due diligence effort. Significant benefits are possible from a statewide e-procurement system, including:

- **Enabling the State to leverage its buying power to obtain the best value for dollars spent -** The solution includes a marketplace component where buyers and sellers can come together over the Internet in an independent environment; suppliers publish once, but are able to sell to many; and buyers are able to share vendor information, practices, and purchasing information. The marketplace will be available to state agencies, universities, community colleges, K-12 schools, and local government.

- **Enabling the State to take full advantage of the latest technology to maximize the value of its procurement process -** The solution includes a robust, scalable, and reliable network application that enables the State to reduce processing costs and improve productivity by automating the procurement cycle and linking end-users with internal approvers and financial systems. It also includes an Internet-based, corporate resource commerce network designed to provide access to large amounts of supplier product information. The network bridges buyers and suppliers on the Internet and offers electronic payment, catalog and content management, order transaction routing, and multi-protocol support for numerous electronic commerce standards.

- **Enabling the State to meet Government-specific needs -** The solution includes government-specific functionality such as Funds Checking, Electronic Posting and Delivery, Purchasing Data Reporting, Electronic Purchasing and Receiving. In addition, the solution offers unique government capabilities such as eQuote, a searchable contracts database, and complete archiving. The solution includes basic functionality relative to capital equipment, eForms, expense management, and procurement charge cards.

- **Enabling the State to implement robust procurement functionality –** The solution will include a fully integrated accounts payable function that provides the required matching of electronic documents. This will insure the integrity of the business transaction from the initiation of the procurement at the requisition stage through the automated payment cycle.

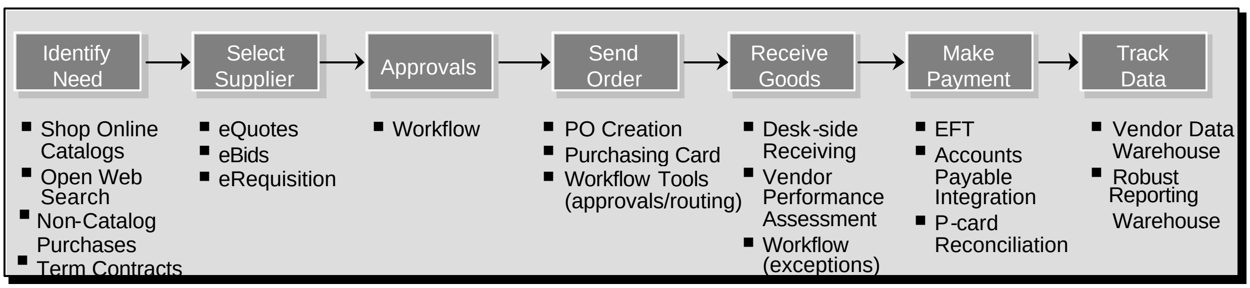
We analyzed several of the leading software options available today and have chosen Ariba, partnered with Epylon Corporation. Accenture has proven experience implementing the Ariba software solution at many organizations, both public and private. In fact, Accenture has deployed the Ariba solution internally with great success. We have analyzed the state's requirements as set forth in the e-procurement Due Diligence contract and have addressed them below. With the State's needs in mind, we believe the proposed solution best reflects the emerging trends in the marketplace today.   Each of the State's e-procurement functional requirements are addressed below:

Contractor will, in consultation with the State, choose, hold license to, and configure the e-procurement infrastructure, including hardware, software, and database management software, from among the leading solutions in the marketplace, consistent with the State's technical architecture. e-procurement functionality shall provide the following services (some through customs mods):

a) Create requisitions for items selected through online shopping.

Requisitions are created in real-time by the user shopping through catalogs loaded on the network or using non-catalog functionality. Orders are created and transmitted to the vendor/supplier real-time from the requisition at the time of final approval.

The Ariba solution provides public sector functionality designed by Epylon. In designing this solution, the primary objective was to make the purchasing process easier — Ariba and Epylon have done this by including, in one solution, all of the functionality government buyers need, as shown in Figure 3-1.



b) Route requisitions for approval, consistent with the State of North Carolina and agency-level business rules and provide information on requisition status. The workflow capability must be able to sort and route transactions to central offices by commodity codes or other sort keys.

The Ariba solution performs requisition and order routing based on the State's business rules. It is able to sort and route transactions to the central offices by commodity codes or any other sort key. These business rules can be very specific - based on any data element and event in the system. For example, a requisition containing a hazardous material item may require the approval of a HazMat expert before ordering. Other common attributes used in business rule configuration are dollar thresholds, supplier attributes (e.g. MWBE), chart of account elements, commodity types, and others.

Optional approvers (called watchers) can also be added based on triggers set in the solution. For example, if the IT director decided to see all requisitions that are over $100,000.00 and contain an IT commodity code, then the requisition could be sent simultaneously to that person, although their approval would not be required.

Transmit approved purchase orders to vendors by means of the portals or by facsimile.

The solution enables suppliers to receive their POs via fax, email, or in HTML format on the Internet. They can also be transmitted and received via EDI and cXML.

c) *Provide automated receipt for delivered items, and include ability to record condition of receipt and vendor performance.*

The workflow-enabled receiving processes of the Ariba solution allow inspection to be one of the steps of the receiving process. Upon inspection, some items may be rejected and justification documentation can be attached for other parties involved to view. An eForm can be customized to include notes on vendor performance for all to access in the future. Users can also partially receive items. The receipts can be pushed to an ERP for matching and payment process completion.

d) *Receive electronic invoices and make electronic payment to vendors for items received.*

The Ariba solution currently triggers a payment authorization based on receipt. This feature can be selective depending on the supplier involved, goods/services ordered, and other attributes. With the addition of the accounts payable functionality, the solution will provide electronic payment via EFT and other more traditional payment methods. The fully integrated Ariba accounts payable functionality will be incorporated into the e-procurement service as soon as it is available and meets North Carolina State Government requirements.

e) *Allow state employees to access key documents relevant to state procurements to selected vendors/facilitate evaluation of bids.*

eBid is Epylon's bidding solution, designed with the public sector's needs in mind. eBid is completely web-based and allows you to maintain vendor lists. It features comprehensive security to allow you to define appropriate access for the myriad kinds of users that the State would support (e.g. registered suppliers, general public, other political entities, etc.). eBid also has functionality that enables tabulation of bid responses on line, allowing for side-by-side comparisons and to evaluate bids according to user defined rules.

f) *Allow the State to perform auctions and reverse auctions as appropriate.*

For auctions, the Ariba solution will use the Ariba Dynamic Trade application to conduct live surplus and reverse auctions. Ariba will enable users to conduct different types of auctions. Specifically, Ariba will enable surplus auctions which allow the State to auction off surplus property to a community of buyers. Ariba can partner with auction software and services companies which provide the functionality to conduct auctions online, an audience who will be interested in participating in the auction online, and services related to shipping, escrow, etc. Ariba can support reverse auctions which allow the State to post request for pricing for large ticket items. Suppliers will respond online, allowing them to compete for business by viewing the best response and trying to beat that response. Reverse auctions can be configured in many different ways depending on the State's needs.

g) Selected software must be capable of:

i. *Dividing and reporting any applicable state and county sales tax*

The Ariba solution supports tax calculation and capture throughout the entire requisition-to-reconciliation process. This is done through a third party software application called

Taxware that can integrate with Ariba and provide tax estimates at the time of requisitioning. The true tax liability is included on the invoice sent from the supplier to the buyer and is part of the matching process.

ii. Meeting HUB reporting requirements

The Ariba solution allows many attributes to be tracked by supplier, commodity/service line, etc. Examples include HUB-designation, whether a commodity item is part of a term contract and/or a recyclable item. Any of the attributes can be incorporated into the reports and queries.

iii. Processing posting and receipt of electronic bids and related functions

eBid allows agencies to post solicitations on the web, and allows vendors to receive those solicitations via the web. Solicitations may contain unlimited text and attachments. eBid tracks vendor receipt, including the exact time, of all bid documents including addenda. Buyers will have a record of receipt of vendor receipt of documents. While some of the above functionality is currently available in the Interactive Purchasing System, with eBid, suppliers will also have the ability to submit their bids electronically and the State can track supplier responses and the exact submittal time.

iv. Checking funds in financial systems prior to purchase order transmission.

The Ariba solution has the capability to initiate funds checking in corresponding financial systems. Funds will be pre-encumbered when the requisition is first submitted for approval. When the requisition receives final approval and turns into a PO, the pre-encumbrance will be relieved and funds will be encumbered. The Epylon solution APIs allow this to occur in real-time or in a batch mode. Ariba provides off-the-shelf *adapters* to integrate with SAP, Oracle, PeopleSoft and JD Edwards applications. Ariba also provides a Customizable Adapter for completing integration with other applications, such as GEAC.

The Ariba solution has the ability to connect to multiple external systems simultaneously. For example, commitments can be made in the DOT's (future) SAP application or in the State's NCAS system.

In our workplan, we have allocated time and resources to integrate the Ariba solution with five financial systems, including NCAS, the Department of Transportation, one university, one community college, and one LEA. For other financial systems, the funds checking task will initially be performed manually. As part of implementation, we will configure a workflow routing rule to automatically route the request for manual funds checking and encumbrance process for all entities in order to streamline the process.

v. Integrating with GEAC and other financial systems for purchasing and accounts payable functions.

The Ariba solution has the ability to integrate with any external system, either via batch or on-line communication. This includes the ability to trigger payments in accounting systems. We will be integrating with NCAS, as well as four other systems. For other systems a program that delivers a flat file of all items received and ordered will be generated.

E-Payment

During due diligence, we have learned the necessity for the State to increase the efficiency of the payment process. The new e-procurement system will aid the State in accomplishing this goal by providing e-payment functionality as a part of the Ariba e-procurement solution. This solution provides many safe and secure methods of facilitating e-payments, such as EFT, EDI, p-card, and more traditional accounts payable options. Should North Carolina choose to use p-cards, this option can be easily added. Under this approach, authorized application administrators can associate p-card payment methods with selected suppliers and buyers through a password protected enterprise management tool. If so desired, application administrators can configure the system so that the use of a p-card on a transaction is completely transparent to the user – only the supplier will be able to view the p-card number associated with the order. Should application administrators desire additional safeguards, business rules can be created that determine what types of transactions (e.g., dollar based, commodity code based, user based) are applicable for e-payment processing. The state can also reap the benefits of the Ariba solution's robust reconciliation and audit trail functionality, which tracks all p-card purchases and helps ensure user compliance with state purchasing guidelines.

Another way to improve efficiency of payments is through process re-engineering of the current system. We have allocated time in the implementation workplan to analyze the payment process and introduce re-engineering and streamlining opportunities for the State to achieve more efficient payment for vendors.

Single face for Procurement

During Due Diligence, the State identified the need to have one purchasing system that would be the single face for procurement for all purchases by the agencies in the State of North Carolina. During the design phase of the project we will develop the exact procedures for this process. It will consist of the following steps:

- **Data Purification** - We will work with the State on the data purification effort to scrub the vendor database, concentrating on the vendors that currently do business with the State of North Carolina.
- **Vendor Conversion** - After the vendor data has been purified, we will populate the vendor information from the VendorLink database and the NCAS vendor database to the Ariba e-procurement vendor database. The vendor information converted will include commodity codes available for the State. The vendors that choose to "participate" in the new e-procurement system will have their catalogs accessible by North Carolina buyers on the Epylon/Ariba system, however, buyers will still be able to purchase items from all vendors via the non-catalog buying functionality. It is also important to note, that over 50 of North Carolina's vendors currently exist on the Ariba solution as Epylon suppliers. These vendors already understand the benefits of e-procurement and are transacting today through Epylon's service offerings. Also, over 20,000 suppliers have created catalogs for various companies/agencies using the Ariba

Commerce Services Network. Many of these suppliers are also North Carolina suppliers. NC suppliers that are already loaded on the Ariba Commerce Services Network can leverage prior catalog loading efforts.

- **Non-Catalog Purchasing** – Because we understand that the supplier adoption process will be ongoing, we want to ensure that North Carolina can purchase from vendors with whom it currently conducts business while the supplier adoption program ramps up.

INTEGRATION

Background

Integration of business systems is a challenge for all organizations. This is particularly true in government environments and in particular for the State of North Carolina. The State has numerous financial and purchasing systems which currently do not integrate with the NCAS (e.g. NC DOT, 3 different types of University Systems, LEAs, Local Governments, other individual agency systems, etc.).

Integration, as referred to in this document, is the ability for the State to exchange information between enterprise systems and the Ariba solution, eliminating the need for manual transfer of critical information.

Most e-procurement packages rely on Enterprise Application Integration (EAI) technologies to integrate their solution to an existing ERP package. EAI frameworks and products from vendors such as CANDLE, TIBCO, IBM and others are used to integrate e-procurement packages to ERP packages. These solutions typically offer a "hub-and-spoke" architecture that allows new systems to plug into the EAI infrastructure through the use of adapters. The hub provides core services for message routing, transformation and management of the associated metadata about the EAI participants. E-Procurement packages also provide delivered integration to major ERP packages (SAP, PeopleSoft, Oracle) and generic integration framework for other ERP systems (e.g. GEAC).

The Solution

An organization's ERP systems represent their central nervous system, a backbone for critical managerial and operational information flow and processes. Epylon was designed from its inception to leverage that backbone while delivering measurable benefits. The solution is delivered with synchronous, real-time integration and asynchronous integration with leading ERP packages (e.g. SAP, PeopleSoft, Oracle).

Through Ariba, Epylon has partnered with leading EAI vendors such as TIBCO and IBM to deliver enterprise integration as an integral part of Epylon's product offering. This integration provides pre-built and pre-tested integration with leading ERP solutions as well as interaction with databases and flat files. Changes to this integration to reflect ERP customizations are implemented using graphical tools to alter the metadata about the Ariba-to-ERP mapping, not through core logic modifications. Customers can implement the solution to deliver ROI and leverage their investments in systems infrastructure without the pain and cost of constructing system interfaces from scratch.

Synchronous or Real-Time Integration

For synchronous integration, Epylon provides a set of documented “exit points” that support on-line invocation of external logic for validation (e.g. funds checking), real-time interfaces, defaulting of values, etc. There are exit points at the field level, for example, when a field is entered, and at the transaction status transition level for the approvable, for example when a requisition is submitted. These exit points are configured using XML and parameter files to invoke external Java classes that are contained in a separate directory from the core Epylon logic. This allows customers to implement on-line interfaces at the desired exit points without core logic modifications.

Asynchronous Integration

Epylon provides an Integration layer to pull data from and push data to other systems. Epylon can integrate with a wide variety of sources within the enterprise infrastructure. Epylon can pull "building block" data such as user details and company/account/center structures from ERP systems such as SAP, Oracle, PeopleSoft or Geac, and can push data such as requisitions, purchase orders and associated accounting details back to these systems. Epylon can also integrate with other resources on networks such as databases, flat files, and LDAP directories.

A Generic Integration Framework

Epylon contains integration interfaces for inbound and outbound communication that provide an integration framework. This integration framework is architected to allow integration with multiple EAI vendors. TIBCO is the delivered EAI product for Epylon. Integration with MQ Series is part of Ariba’s partnership with IBM and is due in the near future.

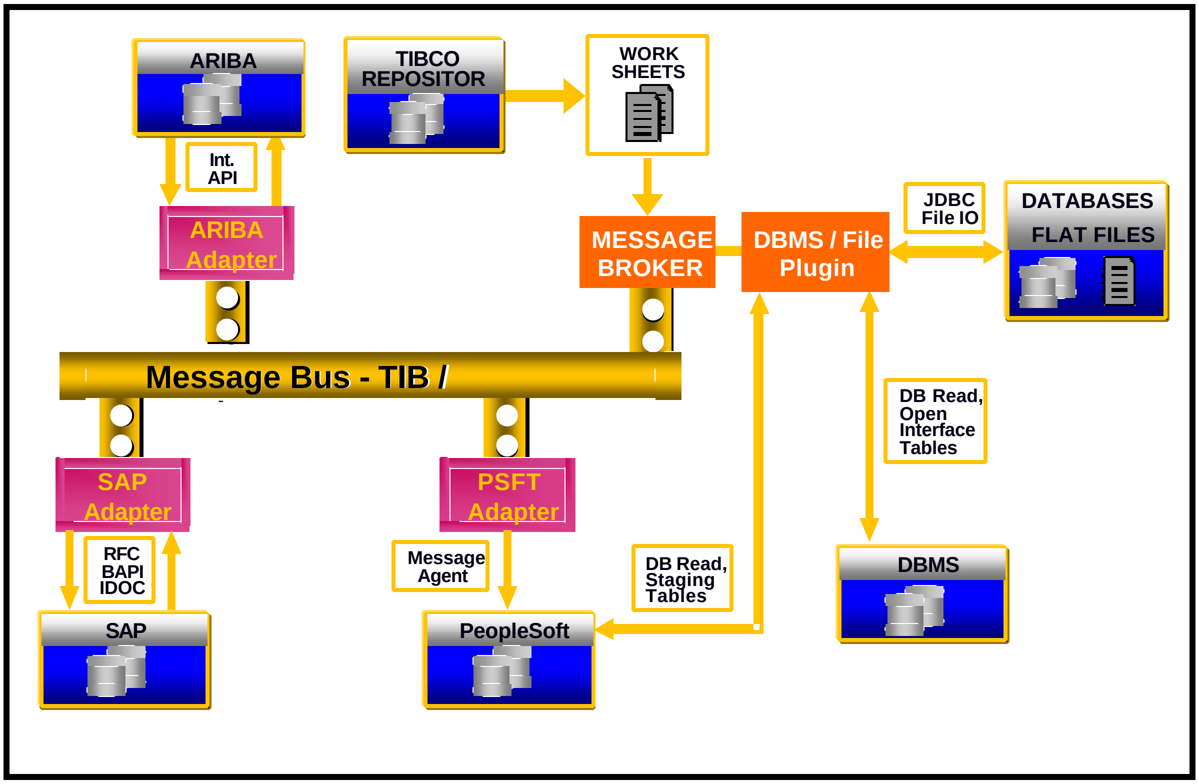
In generic terms, the key aspects of an EAI solution are:

1. A reliable Message Transport for delivery of messages across multiple hardware and OS platforms. This is sometimes referred to as the messaging hub or bus.
2. Adapters or other mechanisms for Epylon and external applications to send data to and receive data from the integration hub. These are sometimes referred to as spokes.
3. Message Transformation to map Epylon object attributes (schema) to the corresponding formats the external systems expect.
4. Metadata Management for Epylon and external system schemas and the associated transformations.

Epylon and TIBCO

Epylon has a set of TIBCO enterprise adapters that are designed specifically to connect to or integrate with leading finance, human resource management, and enterprise resource planning systems. Epylon adapters can integrate with standard installations of these systems or can be configured to integrate with custom implementations of the enterprise system. These adapters enable a single Epylon system to integrate with multiple enterprise applications simultaneously (a feature that will be very useful for the State of North Carolina.)

The following diagram details the various components that Epylon and TIBCO use for integration with other applications, databases and flat files.



Push and Pull Adapters in Ariba

Pull Adapters

Pull adapters allow Ariba to leverage the data entry done in other systems. The following data is typically pulled:

- Users
- Catalogs
- Accounting data
- Supplier locations
- Suppliers
- Addresses

Push Adapters

Adapter pushes are used primarily for transactions. Transactions are units of data created in Epylon by users. Following are two examples of where push adapters would be used:

- To generate an encumbrance, a push adapter would use purchase order totals to insert the appropriate encumbrance into the ERP
- To generate an invoice after receiving, a push adapter would pass the information to create an invoice in the ERP

SAP / Ariba Integration

Epylon provides out-of-the box adapters for SAP. Ariba's integration technology and solutions have produced many successful Ariba / SAP implementations. These implementations span many industries and implementation complexities. A partial list of Ariba / SAP implementations include:

Alcoa	IBM
Autodesk	LaPorte
Bell Canada	Lloyds TSB
BMW	MCI Worldcom
Boehringer Ingelheim	Motorola
Bristol-Myers Squib	Novartis
BuyOne	Nestle
Cadence	Orica
Caltex Petroleum	Pillsbury
Chevron	Phillips
Citizens Communication	Sony – Japan
Diageo	Swissair Group
Dow	Telecom New Zealand
Earthgrains	Texaco
Engelhard	Unilever
Hewlett Packard	VF Corporation

NCAS Integration to Ariba

Integration with NCAS will be accomplished in stages using the Generic API Adapter described earlier. The Generic API Adapter provides integration with existing and legacy systems to interface information with Epylon on a real-time or scheduled basis. Epylon delivers standard methodology and operating templates for integrating to legacy enterprise systems.

Ariba has been integrated to GEAC at four Ariba Clients:

Sunoco (M and E Series)
TransAmerica (E Series)
Union Bank of California (E Series)
Visa International (M Series)

The project team will perform the following integration related tasks:

- Perform Initial Epylon Set-up and Ongoing Maintenance for:
  - Vendors
  - Items (Catalogs)
  - Contracts
  - Users (ongoing maintenance to be transferred to the State)
  - Workflow (ongoing maintenance to be transferred to the State)
- Integrate Epylon to NCAS to perform real-time validation of Chart of Accounts and security validation
- Integrate Epylon to NCAS to perform real-time funds checking and commitment of funds at the point a requisition is created
- Purchase order information will be pushed to NCAS. Receiving will be performed through the Epylon Solution. Receipt information will then be pushed to NCAS to allow the processing of payments.

Evaluated Receipts Settlement (ERS) can be implemented as a part of this solution. Under this approach, two-way matching will be enabled for all or selected suppliers.
The approach to the State-specific integration requirements to the NCAS will need to be confirmed with OSC personnel. Additionally, OSC technical personnel will need to assist in developing the integration between the two systems. This approach will additionally utilize the State's common services infrastructure.

Epylon Integration to the State's other financial systems

Certain entities in North Carolina may want to pursue a fully integrated solution with their non-NCAS legacy or ERP systems. Only integration to NCAS, DOT, one university, one community college, and one LEA has been estimated as part of the e-procurement business model. These organizations will be chosen based on the ability to replicate this integration at other locations. Additional integration not in the scope of this business model will be considered by the Operating Committee on a case by case basis.

HOSTED ENVIRONMENT

The proposed solution is fully hosted, taking advantage of the latest technology, industry standards, and business practices to enable the State to maximize the value of its procurement processes. Accenture will partner with a hosting provider to host servers and provide support services when requested.

Web Site Monitoring

Epylon has established a process designed to detect performance and reliability problems before they have an impact on users. A suite of watchdog applications – Mon, Cricket, Swatch, and Analog are examples – poll the Epylon servers on a constant basis to proactively detect error conditions. Servers refusing a connection prompt an error message that is automatically escalated to a system administrator. Some failures cause the watchdog application to switch operations to an appropriate standby server. This standby/backup server will then pick up processing while the primary server's problems are analyzed and corrected.

Web Host Computer Controls

Epylon's administrative policies and procedures help increase security by thwarting unauthorized access to the application and transaction data and by preventing intrusive "hacking" attacks. The physical plant will be housed in a securely controlled data center.

Epylon's equipment is housed in a raised-floor, HVAC environment, with separate cooling zones and seismically braced racks. In the event of a power failure, backup power is delivered via a uninterruptible power supply (UPS) with generator backup and with dedicated circuit breaker protection and scalable power to the solution's servers. The fire suppression system has separate zones below the floor and above the ceiling plus specialized heat/smoke sensors. Support technicians are present on-site at all times, and are supported by an automatic call distribution system that manages incident tracking and notification of off-duty technicians as needed.

In addition, the hosting provider's physical plant must be specifically designed to minimize the potential impact of a natural disaster. Contingency plans will be in place to restore full functionality to the solution's headquarters within 72 hours following a natural disaster (e.g., earthquake) as necessary.

Disaster Recovery

Although the Epylon Solution is an extremely reliable product, there is the chance that the application could be disrupted due to a disaster beyond the project team's control. To help mitigate this risk, a business continuity plan will be developed prior to the implementation of the e-procurement solution. The business continuity plan will establish guidelines for the re-establishment of transaction processing within an agreed upon time period after a disaster.

In addition, the plan will ensure that all of the State's business continuity concerns are addressed.

Web Host Staffing

Trained staff will be on-site at the hosting provider 24 hours a day and the e-procurement solution staff will be on-call 24 hours a day. The solution uses a sophisticated monitoring system to automatically alert the staff member on call should a problem occur.

Epylon will draw upon the following Network Operations Staff:

- Internet Data Center Manager (IDC Manager)
- Project Manager
- Network Control Center Engineer
- Network Engineer
- Installation Engineer
- Systems Administrator (qualified by operating system or database program)

Upgrades and Modifications

Upgrades and modification rollouts of the solution will be managed by the hosting partner. All users will be notified in advance of the conversion date. No peak-hour system downtime is anticipated to affect migrations, as these are generally completed over weekends or holiday periods.

The Epylon solution is built with standard Internet technologies. As such, the State users with a standard Web browser will be able to access all basic functionality of the site. Epylon plans to continuously update and improve the solution in accordance to feedback from North Carolina and other users. Accenture will promote and support these plans.

SERVICE LEVEL AGREEMENT (SLA)

Service Level Agreement Development Process

The Service Level Agreement (SLA) will focus on providing acceptable service to the State on a daily basis in the ASP-hosted solution. The SLA establishes and defines the service levels agreed to by Accenture, Epylon, and the State team. A combination of Accenture and the hosting provider will monitor and report on system performance to determine compliance with the SLA. These reports will be submitted to the E-Procurement Operating Committee.

To create the SLA, the following tasks should be completed by both the team and the State's project management:

- Develop the Service Level Agreements
- Determine key performance indicators (KPI)
- Coordinate and negotiate KPI objectives
- Document KPI objectives for the online and batch services provided by the solution team
- Establish monitoring criteria and techniques

Although the SLA will be developed and negotiated jointly with the State, the following four sections should provide a strong starting point for discussions:

Application Response

The solution will be constructed to meet the requirements of the State users in terms of performance and reliability. The team is committed to proactive, continuous performance monitoring of the system in an effort to better serve the State whenever possible.

Agreed upon tools will be used to monitor the response time of the proposed solution. The tools can then compare the solution response time against an average of other top-performing sites.

Continual system performance tuning will be required to maintain these performance levels as the size of the database and number of users grow over time. Some reports involving complicated database queries may need to be restricted to maintain performance levels and assure access to the core application processes. These processes will either be restricted to certain times or will be excluded from performance-level agreements. Implementation of a data reporting mechanism would help to ensure the availability of secondary data sources that would perform the majority of these currently unsupported operations.

Network Availability & Responsiveness

The Network Availability SLA will cover those portions of the network operated by the Accenture team. All of the networking equipment in the e-procurement solution, such as routers, switches, firewalls and load balancers, are fully redundant so there are no single points of failure.

System Availability

The solution is architected for maximum availability during peak usage hours. The System Availability SLA will provide guarantees designed to minimize unplanned system downtime. Scheduled system downtime will be required to perform operations functions. A regular schedule will be determined, with changes to that schedule being coordinated through the Accenture team and the State's project management.

The proposed e-procurement solution has been designated to promote a stable and responsive environment for the State's users. Fault tolerance and resiliency have been designed into the system. This solution will include layers of redundancy and fail-over solutions to include multiple, redundant, and load-balanced Web and application servers in concert with clustered database servers to a multiple shared file system configured with Redundant Array of Inexpensive Disk (RAID) storage devices. Each server will have RAID disk subsystems to protect against drive failure. Multiple, redundant network connections and power supplies will be standard for all equipment. The solution has been designed so that a failure in any single piece of equipment will not reduce the availability of the site.

Problem Resolution

The Accenture team in concert with State management will provide details of the problem resolution processes and procedures. They will include business hours access to the project manager and a technical support staff. Business and after-hours support will be available through a call center, with guaranteed response times and escalation procedures for unresolved issues. Mission-critical operations will have appropriate priority response time measured in hours.

Disaster Recovery

Before implementation, data recovery options will be addressed to ensure a rapid return to operations in the event of a natural disaster. The various recovery means available will be analyzed and a business continuity plan will be presented to the State. This plan will establish guidelines for the re-establishment of transaction processing within an agreed upon time period after a disaster. In addition, the plan will ensure that all of the State's business continuity concerns are addressed.

Monitor Performance

Performance of the Accenture solution will be monitored via reports and spot-checks. Accenture and Epylon will monitor and report on system performance to determine compliance with the SLA. It is anticipated that a performance monitoring plan and schedule will be established by the State and the Accenture team prior to project inception.

SLA Objectives and Processes

Identified below are the objectives that could be used in developing the SLA for North Carolina. It is anticipated that the e-procurement management team would meet prior to the project inception to develop the actual SLA. The following tables act as a starting point for these discussions.

Table 1. Service Objectives for Uptime and Timeliness

Service Area	Metric	Tracking Process
Solution Availability	Weekly Uptime	Accenture provides tracking tools. This includes website monitoring statistics and weekly availability reports distributed monthly.
Web Hosting Services	Weekly Uptime	Accenture provides tracking tools and weekly tracking reports distributed monthly
Customer Care Services	Monthly Satisfaction Scorecard	Scorecard is provided monthly
Service Request Turnaround	Days to Complete	E-Mail Confirmation

ORGANIZATIONAL IMPACTS OVERVIEW

Implementing e-procurement in North Carolina has the potential for significant organizational impacts: from the streamlining of the procurement process in agencies where purchasing has been largely a manual process, to the empowerment of requestors who now may make online purchases. The decentralized and diverse nature of the existing procurement processes means that responses to the change may vary by organization and even by individual. Successfully managing the organizational impacts of e-procurement will result in success for the State.

Two large stakeholder groups will be primarily affected: suppliers and users of e-procurement. Both of these groups will require extensive interactions with the E-Procurement Team because their cooperation and participation is critical to the success of North Carolina's e-procurement solution.

The E-Procurement team will consist of Accenture, Ariba, and Epylon resources, plus any subcontractors with the State providing oversight and State subject matter experts.

The E-Procurement Team will develop a detailed plan for user and supplier acceptance:

- **User Adoption Program** – describes the process and methods the E-Procurement team will use to work with users in the agencies, universities, community colleges, LEAs, and local governments with the goal of having all designated users participate in the e-procurement program.

- **Supplier Adoption Program**- details a plan to gain supplier participation in the NC E-Procurement Solution, including marketing approach and methods. Main components include sections on benefits, supplier enablement, and HUB suppliers.

Adoption programs for both users and suppliers include communications, marketing, training and performance support, and collaborative decision-making.

	USERS	SUPPLIERS
Communications and Marketing	■ Benefits ■ Demonstrations ■ Sponsors and Champions ■ Requirements	■ Benefits ■ Demonstrations ■ Requirements
Training and Performance Support	■ Training ■ Help Desk ■ Super-Users ■ Job Aids	■ Education ■ Help Desk ■ Tools ■ Assisted Catalog Entry
Collaborative Decision-Making	■ Buying Authority ■ Roles ■ Business Rules ■ Process	■ Roles ■ Process ■ Catalog

- **Communications Plan** – outlines the communication goals and provides a communication matrix detailing the stakeholder audience, audience type, channel, key message, frequency, and feedback mechanism for planned e-procurement communications.

- **Training Plan** - describes the training goals and objectives, planning method, and main components such as the training pilot, train-the-trainer program, help desk and other training support, and a sample training agenda.

- **Collaborative Decision-Making -** identifies organizational impacts and issues for stakeholders in the group. Team members will perform a Needs Assessment to confirm issues and plan strategies. Assessment results will be a primary input for collaborative decision-making with agencies, universities, community colleges and LEAs. Examples of key issues include role changes, business rules application, cost of participation and bid/contract negotiation for suppliers.

Needs Assessment

During the Initial Phase, the E-Procurement Team will study anticipated organizational impacts and prepare strategies to deal with them by creating a Needs Assessment for each agency, university, community college, LEA and local government that participates. Techniques for data collection and collaboration include focus groups, interviews and group meetings.

The needs assessment process includes the following:

- Identifying stakeholders
- Analyzing needs
- Assessing impact
- Planning strategies
- Implementing plan
- Assessing results
- Revising plan

As part of the Due Diligence effort, team members met with government officials and facilitated two focus groups to begin the needs assessment process. Focus group participants from agencies, universities, community college, and local and county governments talked about strengths and weaknesses of present systems and processes, discussed e-procurement requirements and identified potential issues (see appendix for focus group reports).

The following table highlights potential issues and strategies to address them identified by the team during the due diligence phase.

Issue	Strategy	Comments
Suppliers may resist change	■ Supplier Adoption Program ■ Communication Plan	■ Use communication, collaboration, system demonstration, marketing ■ Create list of benefits ■ Capitalize on support systems already in place at the software provider
Buyer role may become several different roles	■ Collaboration ■ User Adoption Program	■ Decision-makers to identify buyers (if any) who will take on approver role ■ Additional training needed for some buyers ■ Create guidelines for approval process
Users may resist change	■ User Adoption Program ■ Communication Plan	■ Use collaboration, communications, system demonstrations, and sponsor, champion and super-user networks to promote the change

Issue	Strategy	Comments
Some suppliers are not online	■ Supplier Adoption Program	■ Roll out to web-enabled first ■ Catalog entry assistance through The software provider ■ Gather data on suppliers
Large numbers of users	■ Training Plan	■ Train-the-Trainer ■ Super-user networks assist inexperienced users on the job
Measure effectiveness of training	■ Training Plan	■ Benchmarks ■ Evaluate training ■ Revise program as needed
Ongoing need for assistance with using system	■ Training Plan	■ Online help ■ Help desk ■ Super users ■ Create FAQs/Job aids ■ Revise training as needed
Who has authority to buy?	■ Communication Plan ■ Collaboration	■ Identify decision-makers, present choice of models before roll-out ■ Phases overlap – prepare for next phase during this phase by communicating ahead ■ Handouts of rules and processes
Agencies may resist the change	■ Communication Plan	■ Use Model Office simulation ■ Required reports, sponsor, champion and super-user networks to promote the change ■ Analyze and communicate options
Change is mandated	■ Communication Plan	■ High authority deliver message ■ Follow message with FAQ communications ■ Get input from other successful projects ■ Measure compliance and progress
Not all systems will be integrated	■ Communication Plan ■ Collaboration	■ Measure improvements ■ Use Model Office simulation ■ Recommend options

USER ADOPTION PROGRAM

In order to achieve buy-in from North Carolina Government entities and buyers/requestors, we must first understand the issues that are important to users. In the Initial Phase, the E-Procurement Team will identify user issues using interviews, meetings and focus groups. Below is a list of potential key issues concerning users:

- Many users are resistant to change, simply due to human nature and habit.
- Users may believe that e-procurement will make their job more difficult or cumbersome, or they won't be able to deal with the same suppliers.
- Current roles will change due to the impact of e-procurement. Buyers especially may be concerned about the impact.

Needs Assessment

The E-Procurement Team will perform a supplemental needs assessment at agencies, universities, community colleges, LEAs and local governments that participate in the e-procurement solution. The assessments will be based on information gathered by the team during interviews, meetings and focus groups. The needs assessment will be used by the team to understand and deal with issues specific to implementing e-procurement at that government entity. Among other items, the team will use the needs assessment data to identify:

- Level of management support required for the e-procurement initiative
- Potential sponsors and other key influencers
- E-procurement readiness
- User characteristics such as level of education and familiarity with web-based applications
- Number of users who are web-enabled
- Culture and history of success with other initiatives
- Specific e-procurement requirements, business rules or concerns
- Current number of buyers, requestors and approvers
- Existing approval workflows
- Interface strategy if no integration is currently planned

Collaboration

Once the needs assessment is complete, the team will work collaboratively with the agency, university, community college, LEA or local government to plan the e-procurement implementation at that entity. Collaboration is a key technique for dealing with resistance to change because people participating in a change tend to feel more in control and are therefore much more likely to promote the change than resist it. Collaboration for e-procurement implementation will be based on the needs, issues, and concerns of the specific government entity, based on the outcomes from the needs assessment.

For example, the needs assessment might uncover that in a particular local government, purchasing is currently a manual process and that most buyers are not familiar with web-based applications. The team might recommend to the local government that training include basic computer skills and additional practice supported by the help desk and peer super-users. In this way, the team will work collaboratively with the entity to ensure that the implementation of e-procurement takes into consideration the outcomes from the needs assessment. Generally, users will be included in team tasks such as planning, testing the system, and reviewing training.

Sponsor, Champion and Super-User Networks

Another useful method of promoting change is to create networks of people who support the change. Sponsors are high-level officials such as elected officials, agency heads, and others who have influence over large groups of people. Champions can be middle-level people who act as advocates, always seeking ways of promoting e-procurement. Super-users are people who have developed expertise with the software solution. Super-users can answer questions about the system and assist others who are still learning. Networks of sponsors, champions and super-users will promote e-procurement by supporting the change at all levels.

During the needs assessment, and working collaboratively with the agency, university, community college, LEA or local government, the team will identify potential e-procurement sponsors, champions, and super-users for e-procurement for that government entity. Communications describing the role will be sent to each candidate.

Upon acceptance of the role, the sponsors and champions will receive e-procurement demonstrations, user training and progress updates through network meetings, workshops and e-mail. Sponsors and champions will be expected to support the implementation of e-procurement at the entity and raise issues when necessary.

Super-users will be identified during training. They will be selected from the group of users who are quick learners, show an aptitude for helping others and are interested in promoting e-procurement. Names of e-procurement super-users will be communicated to general users so that those who need assistance can ask questions of a peer who is a super-user whenever necessary. The super-user network is not intended to replace traditional training support such as the help desk, but to provide additional help that is readily available on the job.

The team will provide sponsors, champions and super-users with guidelines and other support materials to assist them in their roles.

Communications

Communications will be one of the keys to the successful implementation of e-procurement in North Carolina. Communications will be used to inform, persuade, generate enthusiasm, and reduce fears. Two–way communications such as focus groups can provide feedback for the team. Initially, the team will use communications to reduce barriers to accepting e-procurement. The two most significant potential barriers to users using a new e-procurement solution are users resistant to the change and users not receiving consistent, timely, and relevant information.

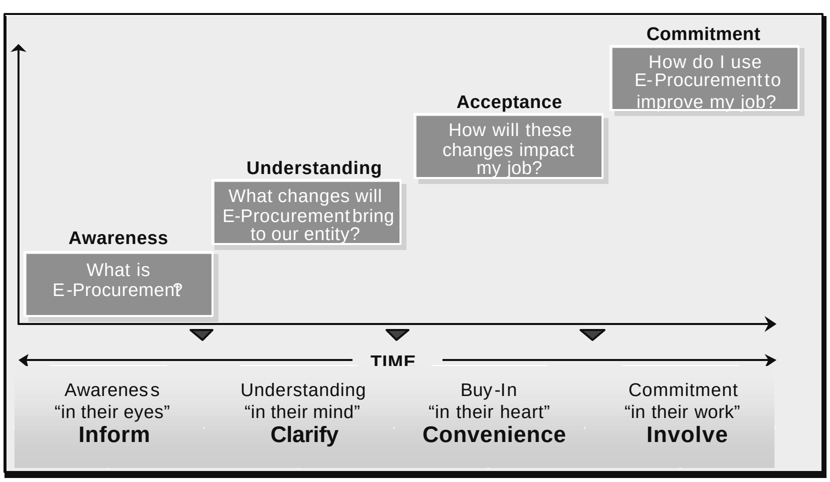
Resisting the change versus embracing the change

This potential barrier to success magnifies the importance of having all members of the State community understand the breadth of the implementation activities. All members must recognize the importance of their involvement in the implementation and understand the anticipated benefits of the implementation effort.

Lack of consistent, timely and relevant information

This potential barrier to success underscores the importance of consistent, timely, and relevant communications as a way to develop and sustain support for the implementation.

Effectively delivered communication to users will foster ownership and significantly accelerate acceptance of the solution. Timely, open, and honest communication will also help to reduce conflict and resistance. The figure below depicts potential questions the State will have to answer in order to move users from a general awareness of the solution. It also shows the objectives the State hopes to achieve by implementing the solution. Clearly, the goal is commitment to the solution.



Stages of User Acceptance

SUPPLIER ADOPTION PROGRAM

Supplier participation is critical to the success of e-procurement in North Carolina. The goal of the Supplier Adoption Program is to help suppliers increase sales and lower operating costs, thus making the e-procurement solution attractive to suppliers.

To achieve this goal, Accenture and the State of North Carolina will make a commitment to the Supplier Adoption Program. Together, we will meet with targeted suppliers and market the e-procurement solution. P&C and ITS will negotiate contracts with suppliers, and Epylon will assist the State with regards to loading these contracts into the e-procurement system. The Supplier Adoption Program combines traditional communications with more innovative marketing and collaboration techniques to achieve a comprehensive program.

Marketing

In order to jump-start the e-procurement program for North Carolina, the team will develop a marketing approach that outlines the measurable benefits suppliers will receive from the new system (e.g. increased sales and lower operating costs), describes the new processes, and defines the timeline for conversion.

The team will communicate to suppliers that contracts will be brought onto the new system based on the current renegotiation dates with a few exceptions, and that the supplier contracts will be renegotiated to include the supplier fee. The supplier fee will be mandated by the State for suppliers that are online in the new e-procurement system.

Approach

Our approach increases momentum for e-procurement in North Carolina by steadily gaining supplier participation.

- As suggested by P&C, suppliers will be activated by contract. This approach will allow the State to bring on all vendors for a particular contract at the same time. Once a contract is re-established, all agencies will be directed to purchase from this contract through the e-procurement service. With a few exceptions (e.g. large contracts), contracts will be brought online to the e-procurement system based on the current contract renewal date.
- As contracts expire, language requiring suppliers to participate in the e-procurement solution and pay the associated fees will be incorporated into the terms and conditions for the new RFPs.

- The team will target the larger contracts (dollar amounts) and renegotiate some of them earlier than their normal renewal timeframe. However this will be the exception rather than the rule.
- The team will identify and target a sample of HUB suppliers to bring aboard early in the process. These suppliers may require additional efforts such as assistance in getting their catalogs online. They will serve as examples for additional HUB suppliers.
- The team will also target other North Carolina suppliers such as small businesses that are not on state contracts or in HUB supplier groups but are important for the State to conduct business.

Methods

The E-Procurement Team will use multiple means to achieve supplier adoption, including collaboration, communications, supplier enablement and HUB outreach programs.

Collaboration

As with buyers, the E-Procurement Team expects to collaborate with State resources in order to encourage suppliers to join the e-procurement program. The team will work with suppliers to get registered and bring their catalogs online. Successes and challenges identified during the early adoptions will be used to refine communications with suppliers and allow for an expedited ramp-up during the months that follow. Team members will work to provide suppliers with information about how they can use the solution to increase their efficiency while selling to North Carolina and to others in the expanded marketplace.

Communications

Suppliers will be the recipients of many communications from the E-Procurement Team. Key messages will be designed to promote participation in e-procurement and will include benefits of participation, timeframes for rollout to various agencies, lists of suppliers already on the system, demonstrations of the system, and available resources such as procedures for creating reports. Input and feedback from suppliers may be collected by the team through focus groups, interviews, and meetings. Such information will be instrumental in allowing North Carolina to meet the needs not only of buyers, but also the suppliers critical to the success of the e-procurement initiative. For more information on communications, see the Communication Plan section.

Supplier Benefits

A key communication to suppliers will focus on the benefits suppliers will gain by participating in North Carolina's e-procurement system. Tangible and intangible supplier benefits include:

- Faster receipt of orders
- Increased accuracy of orders
- Real-time order status information
- Automated order management
- Electronic payment
- Decreased operating and marketing costs
- Increased contract compliance
- Enhanced supplier image through web presence

Supplier Enablement and Education

Currently Epylon manages close relationships with over 1,500 suppliers nationwide. These suppliers vary widely in their experience and level of sophistication in using Internet-based technologies. To ensure that technology is not a barrier to supplier participation, the team will work with suppliers to increase their comfort with the system and increase their participation in the e-procurement initiative. The team will:

- Demonstrate the software and answer technical questions
- Provide tools, templates and procedures to suppliers for creating and updating their own online catalogs
- Offer supplier workshops to introduce tools and assist suppliers in creating and updating catalogs and reports
- Provide a self-directed course for using the software
- Support suppliers with job aids, help desk, and online help
- Create and manage online catalogs on behalf of suppliers with limited resources
- Register suppliers that are not Internet-enabled
- Send invoices and requests for quotes via mail or fax to suppliers that are not web-enabled

HUB Suppliers

Our team will also develop a supplier outreach program designed to remove costs and technology barriers to entry to ensure women-owned businesses, minority-owned businesses and historically underutilized businesses (HUBs) have access to the e-procurement solution. Similar approaches can be used for small businesses and disadvantaged industries. For all suppliers, the team will offer up-front training and support. After the initial training and set up, suppliers will have access to the help desk for any system related issues. Additionally, every supplier will have a supplier account management representative to work with on an ongoing basis. Supplier participation is so critical to the success of the solution that considerable resources are devoted to ensuring supplier satisfaction.

TRAINING PLAN

The successful implementation of e-procurement requires that North Carolina employees be able and willing to use the e-procurement software and perform new business processes and job functions. Because e-procurement software is intuitive and user-friendly, some users may not actually require formal training. The Training Plan defines when and how users will receive the e-procurement training they need and establishes additional mechanisms through which users can obtain point-of-need help after implementation. The E-Procurement Team will create a Training Plan that will support the training goals and objectives for implementing e-procurement. The Training Plan will address training for users of the e-procurement system only. Please refer to the Supplier Adoption Program for information about supplier education.

Training Goal and Objectives

The overall goal of the Training Plan is to give e-procurement capability to North Carolina employees for day one success by building each user's business, procurement, and systems skills.

The overall objectives of the Training Plan are to:

- Utilize a network of sponsors to promote the training.
- Build critical, specific system application skills and process knowledge related to the user's role.
- Provide participants with hands-on opportunities to perform tasks using a realistic, online training environment.
- Minimize the amount of time users spend at training and away from their jobs.
- Deliver the right amount of training as close as possible to the time when users will need to employ their new skills on the job.
- Utilize trainers and functional experts as primary trainers for e-procurement. State trainers may be assisted as necessary by members of the E-Procurement Team, particularly in large agencies where significant numbers of employees may need to be trained.
- Identify and train "super-users" to serve as peer coaches when employees are practicing their new e-procurement skills back on the job after training.
- Provide on-the-job performance support such as help desk and job aids.

In order to achieve these objectives, the training strategy will be based on the following principles:

- Function-focused – Users will attend training specific to job role and required procurement processes. The training will focus on the tasks the users are expected to complete on the job.
- Scenario-based – The training will incorporate “real life” work scenarios and exercises in order to provide participants with relevant learning goals. This approach enables users to relate the skills they are learning to their actual day-to-day activities.
- Performance-based – Throughout training, users will have an opportunity to test the skills they have acquired by completing various activities and procurement scenarios.

Planning Phase

During the planning phase, the E-Procurement Team will identify the training and documentation needs of the State users, define the curriculum, and provide a high-level description of the courses offered.

Team members will complete the following tasks:

- Role Definition – Team members will work closely with agencies, universities, community colleges, LEAs and local governments to define roles that will meet agency e-procurement needs. E-Procurement has the potential for having large impacts on present roles: some agencies, for example, may chose to elevate the role of requestor by giving requestors limited authority to purchase online. Some agencies may want Buyers to continue in their present role but spend more of their time negotiating contracts with suppliers. Other agencies may want buyers to take on approver roles. Agencies will be responsible for assigning personnel to these roles.
- Identification of Number of Users – Following role definition, the team will identify the number of users requiring e-procurement training for each agency, university, community college, LEA and local government. The team will also calculate the number of trainers the State will need to supply to meet the ongoing training needs for e-procurement.
- Organizational Impact Analysis – The potential changes in roles and the training required to meet those needs is addressed in the Organizational Impact Analysis. This analysis details who is responsible for performing tasks, how and to what extent e-procurement will impact them, and what kind of system modifications or process changes will be involved. The organizational impact analysis lays the groundwork for the training plan.
- Audience Analysis – Consists of identifying the characteristics of each audience group as well as their skills and abilities. The audience analysis is used to evaluate which type of training and training topics are most suitable for each audience.
- Curriculum Plan – Identifies and defines a curriculum of courses that will meet the users‘ training needs. We recognize that not all State users will be web-enabled prior to the

launch of the e-procurement program, and therefore some State employees may require basic computer and Internet skills training in addition to e-procurement training.

- Design and Development of Training – With input from agencies, vendors, software providers and the analyses from the planning phase, members of the E-Procurement Team will design and develop e-procurement user training as outlined in the Curriculum Plan. The Training Design will lay out the overall type of training that is most suitable for the users, considering cost, user characteristics and preferences, development time, and other factors. During training development, team members will create the training materials, getting feedback from agencies, users, vendors, and others.

Training Pilot

A Training Pilot is the practice ground for testing the training. A training pilot uses a small number of typical users to determine if the training is effective. The results of the pilot will guide updates to the training before training is rolled out to the various agencies and other government entities on a large scale. The E-Procurement Team will provide training for up to 12 selected users during the training pilot. User manuals, step-by-step procedures, and job aids will be used to support the training.

Training Delivery

Due to the large user population and aggressive time frame for rollout, the team will consider developing online self-directed training in addition to traditional classroom training. For any classroom-based, instructor-led training, it is assumed that the State will utilize a train-the-trainer approach.

Train-the-Trainer

A train-the-trainer approach will be used to train users of the system, including requestors, purchasing professionals, supervisors, and the other purchasing-related roles that the State identifies. Developing the course by modules can allow for flexible training in that users take only the modules they need to perform their roles. In train-the-trainer:

- Users learn from subject matter experts who routinely use the system
- Contact with every user is maximized
- Expert knowledge is built in-house and is dispersed across the various agencies

Train-the-trainer can be implemented by having each government entity select an individual to coordinate the training and serve as point person for questions or issues related to the rollout of the e-procurement solution. On an ongoing basis, the State will then be able to deliver the training and maintain course materials and schedules.

Training Support Strategy

A Training Support Strategy describes how ongoing performance support needs will be met once training is completed. E-Procurement Team members will develop the Training Support Strategy soon after training is designed. Having a performance support strategy will alleviate much of the potential stress on the users during implementation. Training support includes all methods and tools made available to users to support their job performance, such as job aids, Help Desk, Online Help and Peer Support.

- Job aids – quick reference guides that State employees can use after training to assist them in using the e-procurement software when back on the job.
- Help desk – resources who are dedicated to assisting e-procurement users by phone and e-mail. They answer user questions on an as-needed basis. Help Desk questions will be tracked and used to create lists of Frequently Asked Questions (FAQs) for State employees and as input for evaluating, updating and revising the training.
- Online help – the software provides users with user-friendly features to guide the user though the experience of requesting goods and services from State suppliers. Wizards walk the user through each step and provide additional information when needed.
- Peer support (Super-users) – a network of users who have expertise in using the e-procurement software and understand the procurement process and guidelines in the agency, university, community college, LEA or local government. The Super-users can offer assistance to those peers who are less familiar with the e-procurement system.

Training Agenda

The solution is relatively easy to use by those who have basic computer skills and Internet browsing capability. We anticipate there should be less formal training required than for less intuitive programs. Training will address not only using the system, but also, using any new e-procurement processes and/or guidelines. The following Training Agenda provides an overview of the topics that might be covered. The Training Agenda will be finalized during the Initial Phase.

How to Requisition / Process Changes

- Demonstration and overview of the solution
- Creating requisitions
  - Using searches
  - Using punchout
  - Viewing catalogs
- Other Topics
  Receiving / Matching
- Charge-card reconciliation
- Creating custom reports
- Running delivered reports

Accounts Payable

- Issue Vouchers
- Receiving Encumbrances

How to Approve / Process Changes

- Workflow processing
  - Adding watchers
  - Approving requisitions
  - Viewing status
- Creating and awarding eQuotes and eBids

Supplier Training

- Responding to quote requests
- Responding to purchase orders
- Accepting change orders

The E-Procurement Team will work with the State to ensure that the right people are being trained, at the right time, on the right business processes. While the agenda above gives an overview of the training offered, our user adoption tasks will identify and develop more comprehensive and complete training needs. The training approach will provide for flexible training to a variety of users, including specialized training sessions on quoting and bidding and other functionality.

COMMUNICATION PLAN

Description

Communication will be a critical success factor for the E-Procurement Initiative. As part of the North Carolina E-Procurement Initiative, we will have dedicated resources managing the communication effort. We will work with key personnel at the State so that the Communication Plan continues to evolve and serve the needs of North Carolina. The Communication Plan for e-procurement will be integrated with the *NC @ Your Service* Communication Plan and designed to exploit existing channels of communication, foster commitment to the E-Procurement Initiative, and allow for two-way communications among members of the team, the E-Procurement Advisory Committee, IRMC, MIC, ITMAC, and Joint Select Committee; P&C, OSC, ITS and Office of the State Auditor; employees at agencies, universities, community colleges, LEAs, and local governments; suppliers; the software provider; and other interested parties.

Communication Plan Goals

The goals of the e-procurement communication plan are to:

1. Promote collaboration among State agencies, suppliers, and other stakeholders in the E-Procurement Initiative
2. Create buy-in and support for e-procurement
3. Disseminate and leverage e-procurement best practices throughout the state
4. Obtain ongoing feedback to improve the system and process
5. Inform stakeholders of requirements, key decisions, milestones, successes, failures and other news

Communication Matrix

The following communication matrix outlines a high level plan for e-procurement communications. The matrix is used to plan how targeted stakeholders will receive information and give feedback to the E-Procurement Project Team. The matrix is composed of several columns:

- "Audience" indicates the name of the targeted stakeholder group;
- "Internal", "Government" or "Public" identifies the type of audience;
- "Channel" denotes the communication vehicle;
- "Key Message" identifies the topic;
- "Frequency" states how often the communication is planned; and
- "Feedback Mechanism" indicates a method for the audience to respond to the communication.

The Communication Matrix acknowledges the varying number and types of communication required for the different audiences involved with the E-Procurement Initiative. Audiences that are more critical to the success of the initiative will receive more frequent, "higher touch", two-way communication such as meetings and focus groups. Other stakeholder groups that need to know about e-procurement but are less involved will receive less frequent low-touch communications such as newsletters and e-mails.

E-Procurement Communication Matrix

Audience	Internal	Govt.	Public	Channel	Key Message	Frequency	Feedback Mechanism
Project Team	X			Push technology e-mail	Status, news, requirements of e-procurement	As needed	E-mail
				Team meetings	Work planning, staffing	Weekly	Questions and answers
				Press release or news article	e-Procurement news or release	As needed	E-mail
				Calendar	Meetings and events	Continuous	E-mail
P&C, ITS, OSC	X			Push technology e-mail	Status, news, requirements of e-procurement	As needed	E-mail
				Online newsletter	Status of e-procurement, milestones	6x/year	E-mail
				Press release or news article	e-Procurement news or release	As needed	E-mail
				Calendar	Meetings and events	Continuous	E-mail
Office of State Auditor	X			Push technology e-mail	Status, news, requirements of e-procurement	As needed	E-mail
				Online newsletter	Status of e-procurement, milestones	6x/year	E-mail
				Press release or news article	E-Procurement news or release	As needed	E-mail
				Calendar	Meetings and events	Continuous	E-mail

Audience	Internal	Govt.	Public	Channel	Key Message	Frequency	Feedback Mechanism
State Employee		X		Push technology e-mail	Status, news, requirements of e-procurement	As needed	E-mail
				Online newsletter	Status of e-procurement, milestones	6x/year	E-mail
				NC at Your Service Portal	Status of e-procurement, milestones	Continuous	E-mail
				OSP communications	Benefits of using e-procurement, key features	Targeted new hire training	Questions and answers
				Agency-specific	Agency-specific (ie. Job-aid)	On-going	E-mail
				Press release or news article	e-procurement news or release	As needed	E-mail
				Speaker's bureau presentation or demonstration at meeting	Introduction to e-procurement and project	1x/year	E-mail
Committees – E-Procurement Advisory, IRMC, MIC, ITMAC, Joint Select Committee on IT		X		Push technology e-mail	News	As needed	E-mail
				Presentation or demonstration at meeting	e-procurement demonstration or e-procurement and project update	Monthly	Questions and answers
				Press release or news article	e-procurement news or release	As needed	E-mail

Audience	Internal	Govt.	Public	Channel	Key Message	Frequency	Feedback Mechanism
State Agencies, Universities, Community Colleges, Local Education Authorities		X		Push technology e-mail	Status, news	As needed	E-mail
				Meetings	Update on status, implementation schedule	As needed	Questions and Answers
				Focus Groups	e-procurement specific topics	Planning Phase	Questions and Answers
				NC at Your Service Portal/Project Office Web Site	e-procurement status and project news	Continuous	E-mail
				Press release or news article	e-procurement news or release	As needed	E-mail
Local Governments		X		Push technology e-mail	Status, news	As needed	E-mail
				Meetings	Update on status, implementation schedule	As needed	Questions and Answers
				Focus Groups	e-procurement specific topics	As needed	Questions and Answers
				NC at Your Service Portal/Project Office Web Site	e-procurement status and project news	Continuous	E-mail
				Press release or news article	e-procurement news or release	As needed	E-mail
Legislators		X		Push technology e-mail	Status, news	As needed	E-mail

Audience	Internal	Govt.	Public	Channel	Key Message	Frequency	Feedback Mechanism
				Letter	From legislative leadership asking for support in reviewing e-procurement legislation	1x/yr	E-mail
				Meeting with legislative leadership	e-procurement update and status	As needed	Questions and answers
Citizens			X	Press release or news article	e-procurement news or release	As needed	E-mail
Suppliers			X	Focus Groups	e-procurement requirements and progress	Planning Phase	Questions and answers
				Mass Mailing	Advertise e-procurement	1x/month	E-mail
				Sales Presentation	Educate about e-procurement; Establish and maintain relationship, contract for supplier transaction fees	2x/week	Personal contact
				Push technology e-mail	Advertise and educate e-procurement	As needed	E-mail
				NC at Your Service Portal/Project Office Web Site	News, update, status	Continuous	E-mail
Media			X	Media Kit	Fact sheets and e-procurement contacts	As needed	Phone number

Audience	Internal	Govt.	Public	Channel	Key Message	Frequency	Feedback Mechanism
				Press release or news article	e-procurement news	As needed	E-mail
				Media Tour Event (in conjunction with portal tours)	e-procurement news	15x/yr	Questions and answers

FUNDING MODEL OVERVIEW

North Carolina's E-Procurement solution is provided through a public/private partnership utilizing a self-funding business model which requires no cash investment by the State. Key tenets of the funding model include:

- The solution will be self funded, generating revenue through supplier fees
- No cash outlay will be required by the State if the benchmarks are met
- The infrastructure investment will be provided by Accenture
- Cost recovery will occur over the life of the contract with long-term revenue gain sharing for all participants

Financial Structure

The service will be run as a business with shared cost and revenue. Cost recovery will occur over the life of the contract through revenue generated by supplier fees. The State and Accenture will both engage in long-term revenue sharing, once costs are recouped. Any excess revenue will be distributed to the individual buying entities proportionally to the amount of spending that they put through the system. For state agencies, revenue sharing will be distributed to non-reverting agency funds to assist in implementing e-government services for citizens and businesses.

At the outset of the project, the State and Accenture will agree on a planned level of annual revenue in addition to terms regarding cost recovery and revenue sharing. Both parties will share the risk of revenue shortfall below the planned level. If revenue exceeds the estimated spend, this excess revenue will be shared between the State and Accenture according to a formula that increases the State's share as the excess increases. An Operating Committee will oversee the operation of the e-procurement solution. This committee will direct all aspects of the project, ranging from day-to-day operations to long-term revenue goal achievement.

The supplier fees will be specific to individual purchase orders, charging suppliers an established percentage of purchase order value. This revenue structure will provide sufficient revenue to support the cost of operations and potentially provide for additional revenue to be shared by all participating buying entities.

Review of Similar Public Sector Initiatives

As part of the due diligence effort, research was conducted on other similar public sector initiatives to analyze approaches, funding models, lessons learned, and other significant information. North Carolina's approach is congruent with other similar initiatives throughout the country.

FUNDING MODEL PRINCIPLES

The Funding Model Principles are listed below:

1. The model should be simple (cheaper to administer, easier to sell to suppliers)
2. A Supplier Fee is justified if it provides value
3. Promote efficiency in process and consistent buyer behavior
4. Integration is necessary to prevent loss of current functionality
5. Promote equal participation by all suppliers
6. Promote participation of all entities (NCAS, DOT, Universities, Community Colleges, LEA, Local and County Government)
7. The State should be able to exercise control over catalogs (particularly price)

IMPLEMENTATION PLAN OVERVIEW

We have developed an implementation approach with two basic areas: central tasks and agency roll out tasks. Each of these areas is described below and additional resource estimates can be found in the E-Procurement Detailed Workplans.

Central Tasks

Central Tasks are those tasks that are either performed on a one-time basis (e.g. project team organization), or tasks that apply to all agencies (e.g. hardware and software set up, training material development). There are five major central tasks:

- Project Organization
- Technical infrastructure (includes hardware and software set up, environment set ups, and ongoing technical support)
- Supplier Recruitment and Management (includes supplier marketing, recruitment, catalog loading assistance, catalog maintenance assistance)
- Training Materials Development (includes developing a training plan, needs assessment and modifying/developing training materials)
- Project Management (includes all project management activities to manage system implementation, reporting to the Operating Committee and IRMC, etc.)

Agency-specific Tasks

The NC E-Procurement System will include users from central government agencies (NCAS agencies), the NC Dept. of Transportation, State Universities, Community Colleges, Local Education Authorities (LEAs), and local governments (cities, counties and municipalities). The rollout of the system to each of these government entities will be somewhat repetitive, so we have organized the implementation plan as follows:

- Business Process & Workflow Design (includes identifying unique workflows for each of the government entities, identifying any necessary modifications, etc.)
- Software Configuration and Integration (includes programming and system testing, integration to ERP system, establishing chart of accounts, system security, workflow/approval levels, defining users and permission levels, etc.)
- Production System Readiness (includes tasks to have the necessary hardware and software for each particular entity as they come to production)
- User Adoption (includes delivery of training for each government entity)

- Parameter Loading and Conversion (includes loading any parameters or necessary conversion to get the system going (e.g. vendor conversion))

We have grouped the agencies, which will use the system into logical groupings:

Group 1 - Central government agencies (NCAS agencies)
Group 2 - State Universities
Group 3 - Community Colleges
Group 4 - LEAs (Local Education Authorities)
Group 5 - NC Dept. of Transportation
Group 6 - Local Governments (cities/towns, counties and municipalities)

Integration – As requested by the State, our estimates assume the following level of integration between the e-procurement solution and the specific agency's ERP package (e.g. NCAS).

Group 1 - Central government agencies (NCAS agencies) – fully integrated to NCAS
Group 2 - State Universities – One university integrated
Group 3 - Community Colleges – One Community College integrated
Group 4 - LEAs (Local Education Authorities) – One LEA integrated
Group 5 - NC Dept. of Transportation – Integration to new ERP system
Group 6 - Local Governments (cities/towns, counties and municipalities – No integration)

The feasibility of additional integration will be analyzed as part of future rollouts of the E-Procurement solution and are not included in these estimates.

The success of a statewide E-Procurement solution depends greatly upon the support it receives from the end users and the supplier community. As a result, we have significant resources allocated to both the supplier and user adoption programs (training and user outreach).

Implementation Plan

The following pages contain the implementation plan for the North Carolina e-procurement system. The workplan will be finalized based on the final length of the contract and other options that the state chooses to implement. Also included is an estimate of the involvement of state resources. These are subject to confirmation.

- Summary Implementation Plan
- Implementation Work Plan – Agency Involvement

Summary E-Procurement Workplan

		Day Range		
Central Tasks				
1	Project Organization	90	to	90
2	Technical Infrastructure	1,069	to	1,996
3	Accounts Payable Implementation	1,000	to	1,000
4	Supplier Recruitment and Management	4,535	to	4,884
5	Training Development	756	to	940
12	Project Management	1,791	to	3,144
	Central Tasks Total	**9,241**	to	**12,054**
Group 1 - NCAS				
6.1	Business Processes & Work Flow	131	to	131
6.2a	Configure software including modifications	511	to	711
6.2b	Integrate eP to NCAS	1,257	to	1,957
6.3	Production System Readiness	172	to	172
6.4	User Adoption	317	to	643
6.5	Parameter Loading/Conversion	127	to	127
	Group 1 - NCAS - Total	**2,515**	to	**3,741**
Group 2 - University				
7.1	Business Processes & Work Flow	36	to	36
7.2	Software Install & Configure	1,117	to	1,117
7.3	Production System Readiness	40	to	60
7.4	User Adoption	117	to	210
7.5	Parameter Loading/Conversion	100	to	121
	Group 2 - University - Total	**1,410**	to	**1,543**
Group 3 - Community Colleges				
8.1	Business Processes & Work Flow	36	to	36
8.2	Software Install & Configure	966	to	1,166
8.3	Production System Readiness	40	to	60
8.4	User Adoption	213	to	278
8.5	Parameter Loading/Conversion	159	to	159
	Group 3 - Community Colleges - Total	**1,414**	to	**1,698**
Group 4 - LEAs				
9.1	Business Processes & Work Flow	32	to	35
9.2	Software Install & Configure	1,004	to	2,316
9.3	Production System Readiness	40	to	60
9.4	User Adoption	233	to	274
9.5	Parameter Loading/Conversion	312	to	347
	Group 4 - LEAs - Total	**1,621**	to	**3,031**
Group 5 - DOT				
10.1	Business Processes & Work Flow	62	to	62
10.2	Software Install & Configure	1,099	to	1,099
10.3	Production System Readiness	40	to	60
10.4	User Adoption	197	to	225
10.5	Parameter Loading/Conversion	121	to	121
	Group 5 - DOT - Total	**1,519**	to	**1,567**
Group 6 - Local Governments				
11.1	Business Processes & Work Flow	25	to	35
11.2	Software Install & Configure	612	to	875
11.3	Production System Readiness	40	to	50
11.4	User Adoption	332	to	535
11.5	Parameter Loading/Conversion	139	to	199
	Group 6 - Local Govt - Total	**1,148**	to	**1,694**
	Total Days	**18,868**	**to**	**25,327**

E-Procurement Project
Detailed Workplan
Agency Involvement

Project Workplan

Ref.	Segment/Task/Sub-task	Factors	Client Involvement Year 1 (Days)				Client Involvement Ongoing Yrs. (Days)			
			DOA/P&C	OSC	ITS / IRM	Other Agencies	DOA/P&C	OSC	ITS / IRM	Other Agencies
CENTRAL TASKS										
1	**Project Organization**		**15**	**15**	**15**	**0**	**0**	**0**	**0**	**0**
1.1	Organize Team									
1.1.1	Obtain project work area	People	5	5	5	0	0	0	0	0
1.1.2	Establish project team	Days	3	3	3	0	0	0	0	0
1.1.3	Hold kick-off meeting	Months	1	1	1	0	0	0	0	0
1.1.4	Conduct project orientation									
1.2	Confirm Scope and Approach									
1.2.1	Review deployment schedule									
12.2	Confirm workplan and schedule									
2	**Technical Infrastructure**		**0**	**10**	**40**	**0**	**0**	**0**	**30**	**0**
2.1	Design development, training, & test environments									
2.1.1	Identify hardware/software requirements	People	0	1	2	0	0	0	0.5	0
2.1.2	Identify network requirements	Days	0	10	20	0	0	0	5	0
2.1.3	Identify desktop requirements	Months	0	1	1	0	0	0	12	0
2.1.4	Procure necessary infrastructure									
2.2	Build development, training, & test environments									
2.2.1	Install/configure infrastructure									
2.2.2	Install/configure hardware									
2.2.3	Install/configure system software									
2.2.4	Install/configure application software									
2.2.5	Establish market connectivity									
2.2.6	Define and implement development env support plan									
2.2.7	Conduct Technology Readiness Assessment									
2.3	Build software instances for dev, training, & test envs									
2.4	Ongoing Support of Technical Environments									
2.5	Support Training Environment									
2.5.1	Establish Refresh Procedures and Approach									
2.5.2	Test and Confirm Refresh Procedures									
2.5.3	Support Refreshes During Training Sessions									
3	**Accounts Payable Implementation**			**500**			**0**	**0**	**0**	**0**
4	**Supplier Recruitment and Management**		**490**	**120**	**180**	**0**	**120**	**0**	**60**	**0**
4.1	Develop Supplier Adoption Strategy									
4.1.1	Develop and document term contract strategy	People	3 + 1.5 +1	0.5	0.75	0	0.5	0	0.25	0
4.1.2	Develop and document spot buy strategy	Days	20	20	20	0	20	0	20	0
4.1.3	Define and document content management policy	Months	5 + 5 + 2	12	12	0	12	0	12	0
4.1.4	Define key performance metrics									
4.1.5	Define HUB Strategy									
4.1.6	Conduct Supplier Focus Group sessions									
4.1.7	Discuss with state team and receive approval									
4.2	Identify term contracts for initial phases									
4.2.1	Review spend data by supplier									
4.2.2	Develop selection criteria, analyze data									
4.2.3	Discuss analysis results with state team									
4.3	Conduct supplier outreach									
4.3.1	Develop supplier adoption schedule									
4.3.2	Develop presentation materials									
4.3.3	Meet with suppliers									
4.3.4	Secure commitment to participate, set expectations									
4.4	Supplier Registration									
4.4.1	Supplier Registration and Activation - Epylon									
4.4.2	Supplier Registration and Activation - Ariba									
4.5	Define Supplier Purchase Order Process									
4.5.1	Manage Ariba Account Preferences									
4.5.2	Identify and Train Supplier PO processors									
4.5.3	Define PO process for Ariba (FAX/EDI/CXML)									
4.5.4	Document Exception and Issue Resolution Process									
4.5.5	Perform Ariba Training for Purchase Order Process									
4.5.6	Test Purchase Order Process with Supplier									
4.5.7	Support Supplier Business Rule Changes									

Project Workplan

Ref.	Segment/Task/Sub-task	Factors	Client Involvement Year 1 (Days)				Client Involvement Ongoing Yrs. (Days)			
			DOA/P&C	OSC	ITS / IRM	Other Agencies	DOA/P&C	OSC	ITS / IRM	Other Agencies
4.6	Catalog and Contract Facilitation									
4.6.1	Send Catalog and Contract Specification Document									
4.6.2	Work with Supplier to Format Data									
4.6.3	Receive Catalog and Contract Line Items from Supplier									
4.6.4	Qualify the Data									
4.6.5	Approve Data and Transfer to Supplier Integration									
4.7	Load and Classify Contract / Catalog Data									
4.7.1	Load and Classify Contract / Catalog Data - Easy									
4.7.2	Load and Classify Contract / Catalog Data - Medium									
4.7.3	Load and Classify Contract / Catalog Data - High									
4.8	Account Development and Maintenance									
4.8.1	Customize Reports to Monitor NC transactions									
4.8.2	Monitor and Facilitate Supplier Transactions									
4.8.3	Research and Resolve Issues									
4.8.4	Provide Supplier Transaction Reporting									
4.8.5	Support Supplier Training Efforts									
4.8.6	Train Additional Suppliers									
4.8.7	Facilitate Contract / Catalog Line Item Updates									
5	**User Training Development**		**20**	**80**	**20**	**0**	**0**	**0**	**0**	**0**
	Adapt Existing Training Materials									
	Determine Updates Required Based on Role Impact	People	0.25	1	0.25	0	0	0	0	0
	Create Business Scenarios for each Agency Group	Days	20	20	20	0	0	0	0	0
	Modify Materials Based on Business Scenarios	Months	4	4	4	0	0	0	0	0
	Conduct Live Review of Materials									
	Customer Service Readiness									
	Identify Resource Desk Contact									
	Review Current Support Processes and Organization									
	Technical Environment Assessment									
	Develop Escalation Process									
	Tailor Customer Support Process									
	Document Implementation from a Service Perspective									
6	**GROUP 1 - NCAS AGENCIES**									
6.1	**Business Processes & Work Flow**		**60**	**180**	**15**	**0**	**30**	**30**	**30**	**0**
	Assess Current Processes									
	Review affected business processes	People	1	3	0.25	0	0.125	0.125	0.125	0
	Analyze procurement roles and responsibilities	Days	20	20	20	0	20	20	20	0
	Document integration considerations	Months	3	3	3	0	12	12	12	0
	Review Best Practices / Process Templates									
	Review End-to-End Process Model Scenarios									
	Map commodities to target scenarios									
	Review eProcurement marketplace capabilities									
	Review Evaluate Receipts Settlement process									
	Define Process Characteristics by Organization									
	Requisition creation									
	Workflow Approvals (roles,rules,routing)									
	Sourcing									
	Receiving									
	Matching									
	Invoice handling									
	P-Cards									
	Define User and Configuration Management Process									
	Business rule management									
	User & workflow configuration									
	Catalog maintenance									
	Design To-Be Processes									
	Evaluation Receipt Processes									
	Document Procurement Process by Commodity									
	Process flow									
	Controls									
	Business Document Flow									
6.2	**Software Install & Configure**		**90**	**120**	**15**	**0**	**30**	**60**	**30**	**0**
	Design Software Modifications (reports / workflow)									
	Design Interfaces	People	1.5	2	0.25	0	0.125	0.25	0.125	0

Project Workplan

Ref.	Segment/Task/Sub-task	Factors	Client Involvement Year 1 (Days)				Client Involvement Ongoing Yrs. (Days)			
			DOA/P&C	OSC	ITS / IRM	Other Agencies	DOA/P&C	OSC	ITS / IRM	Other Agencies
	Build and Unit Test Software Modifications	Days	20	20	20	0	20	20	20	0
	Build and Unit Test Interfaces	Months	3	3	3	0	12	12	12	0
	Configure eProcurement Software									
			VendorLink							
	Configure permissions (security)									
	Configure Chart of Accounts		IPTs							
	Configure Org Information									
	Establish workflow approval paths									
	Configure P-Card function									
	Conduct System Test									
	System Test Planning									
	System Test									
6.3	**Production System Readiness**		**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**
	Deploy Production Systems									
	Establish Production Execution Architecture	People	0	0.25	0	0	0	0	0	0
	Install production infrastructure	Days	0	20	0	0	0	0	0	0
	Install / configure server hardware	Months	0	1	0	0	0	0	0	0
	Install / configure system software									
	Install / configure application architecture									
	Establish production instance									
	Migrate application components									
	Configure System Management and Ops Infrastructure									
	Install / configure operations mgmt envir.									
	Finalize operations mgmt procedures									
	Finalize SLA									
	Operational Readiness Test									
	Plan operational readiness test									
	Conduct operational readiness test									
	Make ops adjustments as necessary									
6.4	**User Adoption**		**120**	**320**	**40**	**800**	**30**	**120**	**30**	**0**
	Assess change readiness									
	Develop user profile	People	2	4	1	10	0.125	0.5	0.125	0
	Assess eCommerce readiness	Days	20	20	20	20	20	20	20	0
	Assess general change readiness	Months	3	4	2	4	12	12	12	0
	Assess degree of change needed									
	Complete Role Definitions and User Role Impact									
	Develop user adoption strategy (Audience Analysis)									
	Define goals									
	Determine methods / adoption incentives									
	Document strategy									
	Develop user advocacy group									
	Identify power users									
	Conduct initial focus group									
	Conduct ongoing outreach									
	Develop materials to support advocacy group									
	Support purchasing process changes									
	Identify policy or procedure changes required									
	Document changes									
	Deliver End User Training (support only; State TTT deliver training)									
	Provide ongoing support to users									
	Document common user issues									
6.5	**Conversion (parameter loading/conversion)**		**20**	**60**	**10**	**0**	**0**	**0**	**0**	**0**
	Perform Conversion Planning									
	Develop plans for conversion	People	0.5	1	0.25	0	0	0	0	0
	Verify that all prerequisites have been completed	Days	20	20	20	0	0	0	0	0
	Verify that all conversion resources are in place	Months	2	3	2	0	0	0	0	0
	Design and Develop Conversion Programs									
	Test Conversion Programs									
	Resolve any open issues									
	Verify results									
	Execute Conversion Process									
	Resolve any open issues									
	Verify results									

Project Workplan

Ref.	Segment/Task/Sub-task	Factors	Client Involvement Year 1 (Days)				Client Involvement Ongoing Yrs. (Days)			
			DOA/P&C	OSC	ITS / IRM	Other Agencies	DOA/P&C	OSC	ITS / IRM	Other Agencies
7	**GROUP 2 - UNIVERSITIES**									
7.1	**Business Processes & Work Flow**		**20**	**5**	**10**	**80**	**0**	**0**	**0**	**60**
	Assess Current Processes									
	Review affected business processes	People	0.5	0.125	0.25	2	0	0	0	0.25
	Analyze procurement roles and responsibilities	Days	20	20	20	20	0	0	0	20
	Document integration considerations	Months	2	2	2	2	0	0	0	12
	Confirm Best Practices / Process Templates									
	Review End-to-End Process Model Scenarios									
	Map commodities to target scenarios									
	Review eProcurement marketplace capabilities									
	Review Supplier integration options									
	Define Process Characteristics by Organization									
	Requisition creation									
	Workflow Approvals (roles,rules,routing)									
	Sourcing									
	Receiving									
	Matching									
	Invoice handling									
	P-Cards									
	Define User and Configuration Management Process									
	Business rule management									
	User & workflow configuration									
	Catalog maintenance									
	Design To-Be Processes									
	Document Procurement Process by Commodity									
	Process flow									
	Controls									
	Business Document Flow									
7.2	**Software Install & Configure**		**7.5**	**0**	**0**	**120**	**0**	**0**	**0**	**30**
	Design Software Modifications (reports / workflow)									
	Design Interfaces	People	0.125	0	0	2	0	0	0	0.125
	Build and Unit Test Software Modifications	Days	20	20	20	20	20	20	20	20
	Build and Unit Test Interfaces	Months	3	0	0	3	0	0	0	12
	Configure eProcurement Software									
	Configure permissions (security)									
	Configure Chart of Accounts									
	Configure Org Information									
	Establish workflow approval paths									
	Configure P-Card function									
	Conduct System Test									
	System Test Planning									
	System Test									
7.3	**Production System Readiness**		**0**	**0**	**0**	**20**	**0**	**0**	**0**	**0**
	Deploy Production Systems									
	Update Production Execution Architecture	People	0	0	0	0.5	0	0	0	0
	Update (as nec.) production infrastru	Days	0	0	0	20	0	0	0	0
	Establish Production Instance	Months	0	0	0	2	0	0	0	0
	Migrate application components									
	Update System Management and Ops Infrastructure									
	Operational Readiness Test									
	Plan operational readiness test									
	Conduct operational readiness test									
	Make ops adjustments as necessary									
7.4	**User Adoption**		**0**	**0**	**0**	**480**	**0**	**0**	**0**	**120**
	Assess change readiness									
	Develop user profile	People	0	0	0	6	0	0	0	0.5
	Assess eCommerce readiness	Days	0	0	0	20	0	0	0	20
	Assess general change readiness	Months	0	0	0	4	0	0	0	12
	Assess degree of change needed									
	Complete Role Definitions and User Role Impact									
	Develop user adoption strategy (Audience Analysis)									
	Define goals									
	Determine methods / adoption incentives									
	Document strategy									

Project Workplan

Ref.	Segment/Task/Sub-task	Factors	Client Involvement Year 1 (Days) DOA/P&C	OSC	ITS / IRM	Other Agencies	Client Involvement Ongoing Yrs. (Days) DOA/P&C	OSC	ITS / IRM	Other Agencies
	Develop user advocacy group									
	Identify power users									
	Conduct initial focus group									
	Conduct ongoing outreach									
	Develop materials to support advocacy group									
	Support purchasing process changes									
	Identify policy or procedure changes required									
	Doument changes									
	Deliver End User Training (support only; State TTT deliver training)									
	Provide ongoing support to users									
	Document common user issues									
7.5	**Conversion**		**0**	**0**	**0**	**80**	**0**	**0**	**0**	**0**
	Perform Conversion Planning									
	Develop plans for conversion	People	0	0	0	2	0	0	0	0
	Verify that all prerequisites have been completed	Days	0	0	0	20	0	0	0	0
	Verify that all conversion resources are in place	Months	0	0	0	2	0	0	0	0
	Design and Develop Conversion Programs									
	Test Conversion Programs									
	Resolve any open issues									
	Verify results									
	Execute Conversion Process									
	Resolve any open issues									
	Verify results									
8	**GROUP 3 - COMMUNITY COLLEGES**									
8.1	**Business Processes & Work Flow**		**20**	**5**	**10**	**80**	**0**	**0**	**0**	**60**
	Assess Current Processes									
	Review affected business processes	People	0.5	0.125	0.25	2	0	0	0	0.25
	Analyze procurement roles and responsibilities	Days	20	20	20	20	0	0	0	20
	Document integration considerations	Months	2	2	2	2	0	0	0	12
	Confirm Best Practices / Process Templates									
	Review End-to-End Process Model Scenarios									
	Map commodities to target scenarios									
	Review eProcurement marketplace capabilities									
	Review Supplier integration options									
	Define Process Characteristics by Organization									
	Requisition creation									
	Workflow Approvals (roles,rules,routing)									
	Sourcing									
	Receiving									
	Matching									
	Invoice handling									
	P-Cards									
	Define User and Configuration Management Process									
	Business rule management									
	User & workflow configuration									
	Catalog maintenance									
	Design To-Be Processes									
	Document Procurement Process by Commodity									
	Process flow									
	Controls									
	Business Document Flow									
8.2	**Software Configure, Modifications & Testing**		**7.5**	**0**	**0**	**120**	**0**	**0**	**0**	**30**
	Design Software Modifications (reports / workflow)									
	Design Interfaces	People	0.125	0	0	2	0	0	0	0.125
	Build and Unit Test Software Modifications	Days	20	20	20	20	20	20	20	20
	Build and Unit Test Interfaces	Months	3	0	0	3	0	0	0	12
	Configure eProcurement Software									
	Configure permissions (security)									
	Configure Chart of Accounts									
	Configure Org Information									
	Establish workflow approval paths									
	Configure P-Card function									

Project Workplan

Ref.	Segment/Task/Sub-task	Factors	Client Involvement Year 1 (Days) DOA/P&C	OSC	ITS / IRM	Other Agencies	Client Involvement Ongoing Yrs. (Days) DOA/P&C	OSC	ITS / IRM	Other Agencies
	Conduct System Test									
	System Test Planning									
	System Test									
8.3	**Production System Readiness**		**0**	**0**	**0**	**20**	**0**	**0**	**0**	**0**
	Deploy Production Systems									
	Update Production Execution Architecture	People	0	0	0	0.5	0	0	0	0
	Update (as nec.) production infrastru	Days	0	0	0	20	0	0	0	0
	Establish Production Instance	Months	0	0	0	2	0	0	0	0
	Migrate application components									
	Update System Management and Ops Infrastructure									
	Operational Readiness Test									
	Plan operational readiness test									
	Conduct operational readiness test									
	Make ops adjustments as necessary									
8.4	**User Adoption**		**0**	**0**	**0**	**480**	**0**	**0**	**0**	**120**
	Assess change readiness									
	Develop user profile	People	0	0	0	6	0	0	0	0.5
	Assess eCommerce readiness	Days	0	0	0	20	0	0	0	20
	Complete Role Definitions and User Role Impact	Months	0	0	0	4	0	0	0	12
	Develop user adoption strategy (Audience Analysis)									
	Define goals									
	Determine methods/adoption incentives									
	Document strategy									
	Develop user advocacy group									
	Identify power users									
	Conduct initial focus group									
	Conduct ongoing outreach									
	Develop materials to support advocacy group									
	Support purchasing process changes									
	Identify policy or procedure changes required									
	Doument changes									
	Deliver End User Training (support only; State TTT deliver training)									
	Provide ongoing support to users									
	Document common user issues									
8.5	**Conversion**		**0**	**0**	**0**	**80**	**0**	**0**	**0**	**0**
	Perform Conversion Planning									
	Develop plans for conversion	People	0	0	0	2	0	0	0	0
	Verify that all prerequisites have been completed	Days	0	0	0	20	0	0	0	0
	Verify that all conversion resources are in place	Months	0	0	0	2	0	0	0	0
	Design and Develop Conversion Programs									
	Test Conversion Programs									
	Resolve any open issues									
	Verify results									
	Execute Conversion Process									
	Resolve any open issues									
	Verify results									
9	**GROUP 4 - LEA**									
9.1	**Business Processes & Work Flow**		**20**	**5**	**10**	**80**	**0**	**0**	**0**	**30**
	Assess Current Processes									
	Review affected business processes	People	0.5	0.125	0.25	2	0	0	0	0.125
	Analyze procurement roles and responsibilities	Days	20	20	20	20	0	0	0	20
	Document integration considerations	Months	2	2	2	2	0	0	0	12
	Confirm Best Practices/Process Templates									
	Review End-to-End Process Model Scenarios									
	Map commodities to target scenarios									
	Review eProcurement marketplace capabilities									
	Review Supplier integration options									
	Define Process Characteristics by Organization									
	Requisition creation									
	Workflow Approvals (roles,rules,routing)									
	Sourcing									
	Receiving									

Project Workplan

Ref.	Segment/Task/Sub-task	Factors	Client Involvement Year 1 (Days)				Client Involvement Ongoing Yrs. (Days)			
			DOA/P&C	OSC	ITS / IRM	Other Agencies	DOA/P&C	OSC	ITS / IRM	Other Agencies
	Matching									
	Invoice handling									
	P-Cards									
	Define User and Configuration Management Process									
	Business rule management									
	User & workflow configuration									
	Catalog maintenance									
	Design To-Be Processes									
	Document Procurement Process by Commodity									
	Process flow									
	Controls									
	Business Document Flow									
9.2	**Software Install & Configure**		**7.5**	**0**	**0**	**120**	**0**	**0**	**0**	**30**
	Design Software Modifications (reports / workflow)									
	Design Interfaces	People	0.125	0	0	2	0	0	0	0.125
	Build and Unit Test Software Modifications	Days	20	20	20	20	20	20	20	20
	Build and Unit Test Interfaces	Months	3	0	0	3	0	0	0	12
	Configure eProcurement Software									
	Configure permissions (security)									
	Configure Chart of Accounts									
	Configure Org Information									
	Establish workflow approval paths									
	Configure P-Card function									
	Conduct System Test									
	System Test Planning									
	System Test									
9.3	**Production System Readiness**		**0**	**0**	**0**	**20**	**0**	**0**	**0**	**0**
	Deploy Production Systems									
	Update Production Execution Architecture	People	0	0	0	0.5	0	0	0	0
	Update (as nec.) production infrastru	Days	0	0	0	20	0	0	0	0
	Establish Production Instance	Months	0	0	0	2	0	0	0	0
	Migrate application components									
	Update System Management and Ops Infrastructure									
	Operational Readiness Test									
	Plan operational readiness test									
	Conduct operational readiness test									
	Make ops adjustments as necessary									
9.4	**User Adoption**		**0**	**0**	**0**	**480**	**0**	**0**	**0**	**120**
	Assess change readiness									
	Develop user profile	People	0	0	0	6	0	0	0	0.5
	Assess eCommerce readiness	Days	0	0	0	20	0	0	0	20
	Complete Role Definitions and User Role Impact	Months	0	0	0	4	0	0	0	12
	Develop user adoption strategy (Audience Analysis)									
	Define goals									
	Determine methods / adoption incentives									
	Document strategy									
	Develop user advocacy group									
	Identify power users									
	Conduct initial focus group									
	Conduct ongoing outreach									
	Develop materials to support advocacy group									
	Support purchasing process changes									
	Identify policy or procedure changes required									
	Doument changes									
	Deliver End User Training (support only; State TTT deliver training)									
	Provide ongoing support to users									
	Document common user issues									
9.5	**Conversion**		**0**	**0**	**0**	**80**	**0**	**0**	**0**	**0**
	Perform Conversion Planning									
	Develop plans for conversion	People	0	0	0	2	0	0	0	0
	Verify that all prerequisites have been completed	Days	0	0	0	20	0	0	0	0
	Verify that all conversion resources are in place	Months	0	0	0	2	0	0	0	0
	Design and Develop Conversion Programs									
	Test Conversion Programs									

Project Workplan

Ref.	Segment/Task/Sub-task	Factors	Client Involvement Year 1 (Days) DOA/P&C	OSC	ITS / IRM	Other Agencies	Client Involvement Ongoing Yrs. (Days) DOA/P&C	OSC	ITS / IRM	Other Agencies
	Resolve any open issues									
	Verify results									
	Execute Conversion Process									
	Resolve any open issues									
	Verify results									
10	**GROUP 5 - DOT**									
10.1	**Business Processes & Work Flow**		**60**	**120**	**15**	**240**	**0**	**0**	**0**	**240**
	Assess Current Processes									
	Review affected business processes	People	1	2	0.25	4	0	0	0	1
	Analyze procurement roles and responsibilities	Days	20	20	20	20	0	0	0	20
	Document integration considerations	Months	3	3	3	3	0	0	0	12
	Confirm Best Practices / Process Templates									
	Review End-to-End Process Model Scenarios									
	Map commodities to target scenarios									
	Review eProcurement marketplace capabilities									
	Review Supplier integration options									
	Define Process Characteristics by Organization									
	Requisition creation									
	Workflow Approvals (roles,rules,routing)									
	Sourcing									
	Receiving									
	Matching									
	Invoice handling									
	P-Cards									
	Define User and Configuration Management Process									
	Business rule management									
	User & workflow configuration									
	Catalog maintenance									
	Design To-Be Processes									
	Document Procurement Process by Commodity									
	Process flow									
	Controls									
	Business Document Flow									
10.2	**Software Install & Configure**		**15**	**60**	**15**	**300**	**0**	**0**	**0**	**240**
	Design Software Modifications (reports / workflow)									
	Design Interfaces	People	0.25	1	0.25	5	0	0	0	1
	Build and Unit Test Software Modifications	Days	20	20	20	20	0	0	0	20
	Build and Unit Test Interfaces	Months	3	3	3	3	0	0	0	12
	Configure eProcurement Software									
	Configure permissions (security)									
	Configure Chart of Accounts									
	Configure Org Information									
	Establish workflow approval paths									
	Configure P-Card function									
	Conduct System Test									
	System Test Planning									
	System Test									
10.3	**Production System Readiness**		**0**	**0**	**0**	**80**	**0**	**0**	**0**	**0**
	Deploy Production Systems									
	Update Production Execution Architecture	People	0	0	0	2	0	0	0	0
	Update (as nec.) production infrastru	Days	0	0	0	20	0	0	0	0
	Establish Production Instance	Months	0	0	0	2	0	0	0	0
	Migrate application components									
	Update System Management and Ops Infrastructure									
	Operational Readiness Test									
	Plan operational readiness test									
	Conduct operational readiness test									
	Make ops adjustments as necessary									
10.4	**User Adoption**		**0**	**0**	**0**	**640**	**0**	**0**	**0**	**240**
	Assess change readiness									
	Develop user profile	People	0	0	0	8	0	0	0	1
	Assess eCommerce readiness	Days	0	0	0	20	0	0	0	20
	Assess general change readiness	Months	0	0	0	4	0	0	0	12

Project Workplan			Client Involvement Year 1 (Days)				Client Involvement Ongoing Yrs. (Days)			
Ref.	**Segment/Task/Sub-task**	**Factors**	**DOA/P&C**	**OSC**	**ITS / IRM**	**Other Agencies**	**DOA/P&C**	**OSC**	**ITS / IRM**	**Other Agencies**
	Assess degree of change needed									
	Complete Role Definitions and User Role Impact									
	Develop user adoption strategy (Audience Analysis)									
	Define goals									
	Determine methods / adoption incentives									
	Document strategy									
	Develop user advocacy group									
	Identify power users									
	Conduct initial focus group									
	Conduct ongoing outreach									
	Develop materials to support advocacy group									
	Support purchasing process changes									
	Identify policy or procedure changes required									
	Doument changes									
	Deliver End User Training (support only; State TTT deliver training)									
	Provide ongoing support to users									
	Document common user issues									
10.5	**Conversion**		**0**	**0**	**0**	**80**	**0**	**0**	**0**	**0**
	Perform Conversion Planning									
	Develop plans for conversion	People	0	0	0	2	0	0	0	0
	Verify that all prerequisites have been completed	Days	0	0	0	20	0	0	0	0
	Verify that all conversion resources are in place	Months	0	0	0	2	0	0	0	0
	Design and Develop Conversion Programs									
	Test Conversion Programs									
	Resolve any open issues									
	Verify results									
	Execute Conversion Process									
	Resolve any open issues									
	Verify results									
11	**GROUP 6 - Counties and Municipalities**									
11.1	**Business Processes & Work Flow**		**10**	**10**	**10**	**200**	**0**	**0**	**0**	**200**
	Assess Current Processes									
	Review affected business processes	People	0.25	0.25	0.25	5	0	0	0	5
	Analyze procurement roles and responsibilities	Days	20	20	20	20	0	0	0	20
	Document integration considerations	Months	2	2	2	2	0	0	0	2
	Confirm Best Practices / Process Templates									
	Review End-to-End Process Model Scenarios									
	Map commodities to target scenarios									
	Review eProcurement marketplace capabilities									
	Review Supplier integration options									
	Define Process Characteristics by Organization									
	Requisition creation									
	Workflow Approvals (roles,rules,routing)									
	Sourcing									
	Receiving									
	Matching									
	Invoice handling									
	P-Cards									
	Define User and Configuration Management Process									
	Business rule management									
	User & workflow configuration									
	Catalog maintenance									
	Design To-Be Processes									
	Document Procurement Process by Commodity									
	Process flow									
	Controls									
	Business Document Flow									
11.2	**Software Install & Configure**		**7.5**	**7.5**	**7.5**	**300**	**0**	**0**	**0**	**300**
	Design Software Modifications (reports / workflow)									
	Design Interfaces	People	0.125	0.125	0.125	5	0	0	0	5
	Build and Unit Test Software Modifications	Days	20	20	20	20	0	0	0	20
	Build and Unit Test Interfaces	Months	3	3	3	3	0	0	0	3
	Configure eProcurement Software									

Project Workplan

Ref.	Segment/Task/Sub-task	Factors	Client Involvement Year 1 (Days) DOA/P&C	OSC	ITS / IRM	Other Agencies	Client Involvement Ongoing Yrs. (Days) DOA/P&C	OSC	ITS / IRM	Other Agencies
	Configure permissions (security)									
	Configure Chart of Accounts									
	Configure Org Information									
	Establish workflow approval paths									
	Configure P-Card function									
	Conduct System Test									
	System Test Planning									
	System Test									
11.3	**Production System Readiness**		**0**	**0**	**0**	**80**	**0**	**0**	**0**	**0**
	Deploy Production Systems									
	Update Production Execution Architecture	People	0	0	0	2	0	0	0	0
	Update (as nec.) production infrastru	Days	0	0	0	20	0	0	0	0
	Establish Production Instance	Months	0	0	0	2	0	0	0	0
	Migrate application components									
	Update System Management and Ops Infrastructure									
	Operational Readiness Test									
	Plan operational readiness test									
	Conduct operational readiness test									
	Make ops adjustments as necessary									
11.4	**User Adoption**		**0**	**0**	**0**	**800**	**0**	**0**	**0**	**360**
	Assess change readiness									
	Develop user profile	People	0	0	0	10	0	0	0	1.5
	Assess eCommerce readiness	Days	0	0	0	20	0	0	0	20
	Complete Role Definitions and User Role Impact	Months	0	0	0	4	0	0	0	12
	Develop user adoption strategy (Audience Analysis)									
	Define goals									
	Determine methods / adoption incentives									
	Document strategy									
	Develop user advocacy group									
	Identify power users									
	Conduct initial focus group									
	Conduct ongoing outreach									
	Develop materials to support advocacy group									
	Support purchasing process changes									
	Identify policy or procedure changes required									
	Doument changes									
	Deliver End User Training (support only; State TTT deliver training)									
	Provide ongoing support to users									
	Document common user issues									
11.5	**Conversion**		**0**	**0**	**0**	**80**	**0**	**0**	**0**	**0**
	Perform Conversion Planning									
	Develop plans for conversion	People	0	0	0	2	0	0	0	0
	Verify that all prerequisites have been completed	Days	0	0	0	20	0	0	0	0
	Verify that all conversion resources are in place	Months	0	0	0	2	0	0	0	0
	Design and Develop Conversion Programs									
	Test Conversion Programs									
	Resolve any open issues									
	Verify results									
	Execute Conversion Process									
	Resolve any open issues									
	Verify results									
12	**Project Management**		**99**	**112**	**41**	**594**	**21**	**21**	**18**	**218**
12.1	Project Controls									
12.1.1	Set Up Issue Resolution Process	Sum of all prior tasks	990	1122.5	412.5	5940	210	210	180	2180
12.1.2	Set Up Meeting and Status Structure	Percent	10%	10%	10%	10%	10%	10%	10%	10%
12.2	Team Status Management									
12.3	Issue Management									
12.4	Maintain Workplan									
12.5	Status Reporting									
12.6	Project Communications									
12.7	Update Business Case and ROI Model									

Project Workplan

Ref.	Segment/Task/Sub-task	Factors	Client Involvement Year 1 (Days)				Client Involvement Ongoing Yrs. (Days)			
			DOA/P&C	OSC	ITS / IRM	Other Agencies	DOA/P&C	OSC	ITS / IRM	Other Agencies
			1,089	**1,235**	**454**	**6,534**	**231**	**231**	**198**	**2,398**
			4.5	5.1	1.9	27.2	1.0	1.0	0.8	10.0

Appendix A:

Purchasing Data Analysis Reports

All Entities

Data received	115
Contacted and awaiting data	13
Unable to provide data	15
Not responded	98
Total number of entities	241

State Agencies

Data received	49
Total number of state agencies	49

Universities

Data received	11
Contacted and awaiting data	2
Unable to provide data	0
Not responded	4
Total number of universities	17

Community Colleges

Data received	42
Contacted and awaiting data	3
Unable to provide data	5
Not responded	8
Total number of community colleges	58

LEAs

Data received	14
Contacted and awaiting data	7
Unable to provide data	10
Not responded	86
Total number of LEAs	117

Type of data received/reliability

Complete - reliable information (80%)	18
Mostly complete - a few services included (65%)	20
Partially complete - Several services included (50%)	55
Incomplete - Numerous services included or other complications (<50%)	8
Hardcopy / Un-useable files	14

Comments

- Many do not use commodity codes
- Some data reflects more than just goods purchased (i.e. Services, Payroll)
- Some have only a portion of their purchased goods procured through PO's and / or electronically recorded
- Several have stated that they do not collect this information electronically and therefore either cannot provide it or only have it in a manual form

North Carolina PO Spend Totals Summary

	Total	Adjusted Total***
State Agencies	$ 1,949,796,801.55	$ 645,898,366.70
Universities	$ 2,176,002,172.39	$ 375,756,434.86
Community Colleges	$ 136,269,683.32	$ 59,991,100.67
LEAs	$ 946,124,226.73	$ 238,232,494.98
Total:	**$ 5,208,192,883.99**	**$ 1,319,878,397.20**
Counties*	$ 2,676,313,576.00	$ 133,815,678.80
Municipalities**	$ 3,100,350,614.00	$ 155,017,530.70
Grand Total	**$ 10,984,857,073.99**	**$ 1,608,711,606.70**

* Data provided by Vance Holloman, treasurer's office; represents all counties' operating expenditures excluding salaries & wages, capital outlay, and public school funding

** Data provided by Vance Holloman, treasurer's office; represents 529 municipalities' operating expenditures excluding salaries & wages and capital outlay

*** Adjusted Total determined by applying a data reliability factor to the total dollar amount

North Carolina Spend Data Collection Results
State Agencies

Department	Data Received	Total	eP Factor	Adjusted Total	Data Comments
Department of Transportation	Yes	$ 1,437,918,788.77	20%	$ 287,583,757.75	Countless construction companies for $100's of millions
ADATC-Black Mountain	Yes	$ 198,878.17	70%	$ 139,214.72	Includes some services
ADATC-Greenville	Yes	$ 219,925.10	70%	$ 153,947.57	Includes some services
Administrative Office of the Courts	Yes	$ 11,700,022.03	70%	$ 8,190,015.42	Includes some services
Aging	Yes	$ 19,551.86	70%	$ 13,686.30	Includes some services
Black Mountain Center	Yes	$ 2,217,838.18	70%	$ 1,552,486.73	Includes some services
Blind Services	Yes	$ 529,676.90	70%	$ 370,773.83	Includes some services
Broughton Hospital	Yes	$ 3,602,665.31	70%	$ 2,521,865.72	Includes some services
Caswell Center	Yes	$ 3,546,193.05	70%	$ 2,482,335.14	Includes some services
Cherry Hospital	Yes	$ 3,106,532.29	70%	$ 2,174,572.60	Includes some services
Child Development	Yes	$ 160,728.32	70%	$ 112,509.82	Includes some services
Department of Administration	Yes	$ 27,925,236.88	70%	$ 19,547,665.82	Includes some services
Department of Agriculture	Yes	$ 10,603,523.66	70%	$ 7,422,466.56	Includes some services
Department of Commerce	Yes	$ 5,715,978.90	70%	$ 4,001,185.23	Includes some services
Department of Community Colleges	Yes	$ 1,194,602.34	70%	$ 836,221.64	Includes some services
Department of Correction	Yes	$ 150,650,604.97	70%	$ 105,455,423.48	Includes some services
Department of Crime Control & Public Safety	Yes	$ 71,082,761.74	70%	$ 49,757,933.22	Includes some services
Department of Cultural Resources	Yes	$ 2,058,027.78	70%	$ 1,440,619.45	Includes some services
Department of Environment and Natural Resources	Yes	$ 22,447,347.71	70%	$ 15,713,143.40	Includes some services
Department of Insurance	Yes	$ 3,360,169.72	70%	$ 2,352,118.80	Includes some services
Department of Justice	Yes	$ 14,040,840.37	70%	$ 9,828,588.26	Includes some services
Department of Labor	Yes	$ 2,212,559.00	70%	$ 1,548,791.30	Includes some services
Department of Public Instruction	Yes	$ 35,796,796.03	70%	$ 25,057,757.22	Includes some services
Department of Revenue	Yes	$ 3,998,003.05	70%	$ 2,798,602.14	Includes some services
Department of State Treasurer	Yes	$ 3,591,860.59	70%	$ 2,514,302.41	Includes some services
Department of the Secretary of State	Yes	$ 394,338.40	70%	$ 276,036.88	Includes some services
DHHS-Central Admin	Yes	$ 65,554,322.33	70%	$ 45,888,025.63	Includes some services
Dorethea Dix	Yes	$ 3,040,760.73	70%	$ 2,128,532.51	Includes some services
Health Services	Yes	$ 3,587,546.28	70%	$ 2,511,282.40	Includes some services
Information Technology Services	Yes	$ 20,295,150.74	70%	$ 14,206,605.52	Includes some services
Mental Health	Yes	$ 16,621.00	70%	$ 11,634.70	Includes some services
Murdoch Center	Yes	$ 4,319,010.83	70%	$ 3,023,307.58	Includes some services
NCSSM	Yes	$ 1,297,024.30	70%	$ 907,917.01	Includes some services

- Totals received from OSC (NCAS) except DOT which reported directly
11/07/00

North Carolina Spend Data Collection Results
State Agencies

Department	Data Received	Total	ePFactor	Adjusted Total	Data Comments
North Carolina General Assembly	Yes	$ 1,383,279.26	70%	$ 968,295.48	Includes some services
O'Berry Center	Yes	$ 1,766,983.25	70%	$ 1,236,888.28	Includes some services
Office of Administrative Hearings	Yes	$ 113,627.23	70%	$ 79,539.06	Includes some services
Office of Juvenile Justice	Yes	$ 5,336,481.54	70%	$ 3,735,537.08	Includes some services
Office of the Lt. Governor	Yes	$ 1,007.80	70%	$ 705.46	Includes some services
Office of the State Auditor	Yes	$ 1,403,902.92	70%	$ 982,732.04	Includes some services
Office of the State Controller	Yes	$ 287,381.52	70%	$ 201,167.06	Includes some services
Services for the Deaf	Yes	$ 8,304,459.53	70%	$ 5,813,121.67	Includes some services
Social Services	Yes	$ 110,000.00	70%	$ 77,000.00	Includes some services
Special Care Center	Yes	$ 1,665,142.13	70%	$ 1,165,599.49	Includes some services
State Board of Elections	Yes	$ 221,062.09	70%	$ 154,743.46	Includes some services
State Fair	Yes	$ 375,024.99	70%	$ 262,517.49	Includes some services
Umstead Hospital	Yes	$ 3,086,664.72	70%	$ 2,160,665.30	Includes some services
Vocational Rehabilitation	Yes	$ 2,172,781.78	70%	$ 1,520,947.25	Includes some services
Western Carolina Center	Yes	$ 2,315,052.16	70%	$ 1,620,536.51	Includes some services
Wildlife Resources Commission	Yes	$ 4,850,063.30	70%	$ 3,395,044.31	Includes some services
49 out of 49 state agencies reporting		**$ 1,949,796,801.55**		**$ 645,898,366.70**	**Agency Subtotal**

- Totals received from OSC (NCAS) except DOT which reported directly

11/07/00

North Carolina Spend Data Collection Results
Universities

Department	Data Received	Total	ePFactor	Adjusted Total	Attendance	Data Comments
NC School of the Arts	Yes	$ 5,021,644	15%	$ 753,247	794	
University of NC at Chapel Hill	Yes	$ 869,036,314	18%	$ 156,426,537	24,044	There are major services included totaling well over
University of NC at Asheville	Yes	$ 3,734,404	15%	$ 560,161	3,239	A few services
Appalachian State University	Yes	$ 17,777,674	15%	$ 2,666,651	12,500	A few services
University of NC at Greensboro	Yes	$ 104,495,039	15%	$ 15,674,256	12,998	Total does not match those reported in email of $27 million; Numerous services included
University of NC at Charlotte	Yes	$ 27,077,381	15%	$ 4,061,607	16,844	A few services
Fayetteville State University	Yes	$ 3,782,142	15%	$ 567,321	4,347	A few services are included, but only a few vendors (23) are even reported
University of NC at Wilmington	Yes	$ 18,199,136	15%	$ 2,729,870	9,757	A few services included
University of NC at Pembroke	Yes	$ 10,087,366	15%	$ 1,513,105	2,966	Received
North Carolina State University	Yes	$ 973,238,264	18%	$ 175,182,888	26,927	Received
North Carolina A&T State University	Yes	$ 25,310,242	15%	$ 3,796,536	7,442	Received
Elizabeth City State University	No	$ 6,655,757	10%	$ 665,576	1,957	Contacted but not received
Winston-Salem University	No	$ 9,464,983	10%	$ 946,498	2,783	No Response
North Carolina Central University	No	$ 18,504,841	10%	$ 1,850,484	5,441	No Response
East Carolina University	No	$ 62,010,433	10%	$ 6,201,043	18,233	Unreadable data
Western Carolina University	No	$ 21,606,553	10%	$ 2,160,655	6,353	Unreadable data
UNC-General Administration	No					No Response
11 out of 17 universities reporting		**$ 2,176,002,172**		**$ 375,756,435**		**University Subtotal**

- Universities with Data Received column "Yes" reported totals directly
- Other totals are extrapolated based on average totals reported by number of students

North Carolina Spend Data Collection Results
Community Colleges

Department	Data Received	Total	ePFactor	Adjusted Total	Attendance	Data Comments
Bladen Community College	Yes	$ 986,751.33	70%	$ 690,725.93	4,673	
Piedmont Community College	Yes	$ 1,307,880.02	70%	$ 915,516.01	7,328	
Alamance Community College	Yes	$ 1,292,200.83	70%	$ 904,540.58	14,035	
Durham Technical Community College	Yes	$ 3,211,157.99	60%	$ 1,926,694.79	18,438	A few services included
Wake Technical Community College	Yes	$ 7,384,236.39	50%	$ 3,692,118.20	46,135	Several services including power
Brunswick Community College	Yes	$ 1,813,784.83	70%	$ 1,269,649.38	6,809	
Southeastern Community College	Yes	$ 3,196,038.95	60%	$ 1,917,623.37	8,422	A few services included
Wilkes Community College	Yes	$ 1,420,974.22	70%	$ 994,681.95	11,316	
Robeson Community College	Yes	$ 1,722,496.44	60%	$ 1,033,497.86	11,473	A few services included
Mayland Community College	Yes	$ 383,951.11	70%	$ 268,765.78	5,678	
Haywood Community College	Yes	$ 1,975,137.72	60%	$ 1,185,082.63	7,559	
Roanoke-Chowan Community College	Yes	$ 695,498.26	70%	$ 486,848.78	3,669	
Caldwell Community College & Tech. Inst.	Yes	$ 7,128,978.26	50%	$ 3,564,489.13	13,927	Several services including power, gas
Richmond Community College	Yes	$ 1,286,753.58	60%	$ 772,052.15	7,828	A few services included, power
Forsyth Technical Community College	Yes	$ 2,860,159.71	70%	$ 2,002,111.80	29,127	
Nash Community College	Yes	$ 1,125,698.95	70%	$ 787,989.27	10,709	
Randolph Community College	Yes	$ 1,034,926.13	70%	$ 724,448.29	10,793	
Tri-County Community College	Yes	$ 1,029,368.10	70%	$ 720,557.67	4,862	
Johnston Community College	Yes	$ 2,651,789.98	60%	$ 1,591,073.99	13,091	A few services included
Coastal Carolina Community College	Yes	$ 2,800,630.25	60%	$ 1,680,378.15	22,355	
Vance-Granville Community College	Yes	$ 2,358,509.19	60%	$ 1,415,105.51	16,100	Total does not match $2,358,719.64
College of The Albemarle	Yes	$ 873,888.44	70%	$ 611,721.91	9,444	
Halifax Community College	Yes	$ 488,510.63	70%	$ 341,957.44	7,722	
Cape Fear Community College	Yes	$ 6,072,733.01	50%	$ 3,036,366.51	22,108	Several Services
James Sprunt Community College	Yes	$ 949,307.28	60%	$ 569,584.37	5,942	Possible minor services
Southwestern Community College	Yes	$ 1,261,362.25	70%	$ 882,953.58	9,944	
Gaston College	Yes	$ 1,935,704.42	70%	$ 1,354,993.09	18,972	
Sandhills Community College	Yes	$ 2,006,811.93	70%	$ 1,404,768.35	14,757	
Pitt Community College	Yes	$ 5,754,987.30	50%	$ 2,877,493.65	16,288	Several services
Wayne Community College	Yes	$ 1,426,040.87	70%	$ 998,228.61	13,400	
Mitchell Community College	Yes	$ 1,335,813.58	60%	$ 801,488.15	9,124	A few services

- Community Colleges with Data Received column "Yes" reported totals directly
- Other totals are extrapolated based on average totals reported by number of students or average total if no attendance data is available

11/07/00

North Carolina Spend Data Collection Results
Community Colleges

Department	Data Received	Total	eP Factor	Adjusted Total	Attendance	Data Comments
Davidson County Community College	Yes	$ 3,801,109.78	60%	$ 2,280,665.87	11,826	A few services
Rockingham Community College	Yes	$ 2,466,132.12	60%	$ 1,479,679.27	11,354	
Central Carolina Community College	Yes	$ 1,298,577.07	60%	$ 779,146.24	17,122	Contacted but not received
Stanly Community College	No	$ 1,052,099.90	25%	$ 263,024.98	6,427	Contacted but not received
Montgomery Community College	No	$ 592,757.70	25%	$ 148,189.43	3,621	Contacted but not received
Catawba Valley Community College	No	$ 3,121,922.70	25%	$ 780,480.68	19,071	Hardcopy
Edgecombe Community College	No	$ 1,272,112.70	25%	$ 318,028.18	7,771	Hardcopy
Rowan-Cabarrus Community College	No	$ 3,247,808.00	25%	$ 811,952.00	19,840	Hardcopy
Martin Community College	No	$ 757,603.60	25%	$ 189,400.90	4,628	Hardcopy
Sampson Community College	No	$ 1,166,689.90	25%	$ 291,672.48	7,127	Hardcopy
Central Piedmont Community College	No	$ 9,706,100.40	25%	$ 2,426,525.10	59,292	Hardcopy
Fayetteville Technical Community College	No	$ 6,429,972.30	25%	$ 1,607,493.08	39,279	Hardcopy
Isothermal Community College	No	$ 1,543,691.00	25%	$ 385,922.75	9,430	No Response
Asheville-Buncombe Tech Community	No	$ 4,176,150.70	25%	$ 1,044,037.68	25,511	No Response
Beaufort County Community College	No	$ 1,171,600.90	25%	$ 292,900.23	7,157	No Response
NC Center for Applied Textile Technology	No	$ 2,349,477.30	10%	$ 234,947.73		No Response - no attendance numbers
McDowell Technical Community College	No	$ 1,173,565.30	25%	$ 293,391.33	7,169	No Response
Carteret Community College	No	$ 1,080,747.40	25%	$ 270,186.85	6,602	No Response
Anson Community College	No	$ 2,349,477.30	10%	$ 234,947.73		No Response - no attendance numbers
Cleveland Community College	No	$ 1,325,970.00	25%	$ 331,492.50	8,100	No Response
Blue Ridge Community College	No	$ 2,259,387.40	25%	$ 564,846.85	13,802	Unable to provide
Western Piedmont Community College	No	$ 2,331,579.10	25%	$ 582,894.78	14,243	Unable to provide
Pamlico Community College	No	$ 296,297.00	25%	$ 74,074.25	1,810	Unable to provide
Wilson Technical Community College	No	$ 1,786,785.50	25%	$ 446,696.38	10,915	Unable to provide
Surry Community College	No	$ 2,086,192.80	25%	$ 521,548.20	12,744	Unable to provide
Guilford Technical Community College	No	$ 5,920,046.80	25%	$ 1,480,011.70	36,164	Unreadable data
Craven Community College	No	$ 1,733,746.70	25%	$ 433,436.68	10,591	Unreadable data
33 out of 58 community colleges reporting		**$ 136,269,683.32**		**$ 59,991,100.67**		**Community Colleges Subtotal**

- Community Colleges with Data Received column "Yes" reported totals directly
- Other totals are extrapolated based on average totals reported by number of students or average total if no attendance data is available

11/07/00

North Carolina Spend Data Collection Results
LEAs

Department	Data Received	Total	eP Factor	Adjusted Total	Attendance	Data Comments
230 Cleveland	Yes	$ 2,663,184.10	65%	$ 1,731,069.67	9,370	A few services
320 Durham	Yes	$ 3,316,593.43	65%	$ 2,155,785.73	29,093	A few services
010 Alamance	Yes	$ 16,129,790.02	10%	$ 1,612,979.00	20,037	Almost every vendor is listed several times with the same payment, just different vendor numbers
050 Ashe	Yes	$ 978,365.00	65%	$ 635,937.25	3,198	Limited list of items, yet seems somewhat thorough
410 Guilford	Yes	$ 94,009,524.26	25%	$ 23,502,381.07	62,072	Lots of construction and services for several million dollars
600 Charlotte-Mecklenburg	Yes	$229,747,190.40	25%	$ 57,436,797.60	100,368	Lots of construction and services for several million dollars
995 Yancey	Yes	$ 546,998.00	50%	$ 273,499.00	2,483	Only 11 items listed, may be incomplete (larger)
530 Lee	Yes	$ 92,842.00	25%	$ 23,210.50	8,692	Only 3 items listed, may be incomplete (larger)
480 Hyde	Yes	$ 824,915.00	50%	$ 412,457.50	727	Only 9 items listed, may be incomplete (larger)
132 Kannapolis City	Yes	$ 3,217,845.63	50%	$ 1,608,922.82	4,159	Several services including utilities, water, etc..
181 Hickory City	Yes	$ 422,689.17	70%	$ 295,882.42	4,440	
300 Davie	No	$ 3,244,145.84	25%	$ 811,036.46	5,564	Contacted but not received
510 Johnston	No	$ 11,850,694.50	25%	$ 2,962,673.63	20,325	Contacted but not received
580 Martin	No	$ 2,859,326.24	25%	$ 714,831.56	4,904	Contacted but not received
861 Elkin City	No	$ 627,372.56	25%	$ 156,843.14	1,076	Contacted but not received
920 Wake	No	$ 55,401,195.08	25%	$ 13,850,298.77	95,018	Contacted but not received
960 Wayne	No	$ 11,301,451.98	25%	$ 2,825,363.00	19,383	Contacted but not received
980 Wilson	No	$ 7,102,253.86	25%	$ 1,775,563.47	12,181	Contacted but not received
250 Craven	No	$ 8,646,196.74	25%	$ 2,161,549.19	14,829	Hardcopy
490 Iredell-Statesville	No	$ 9,692,206.38	25%	$ 2,423,051.60	16,623	Hardcopy
820 Sampson	No	$ 4,556,613.90	25%	$ 1,139,153.48	7,815	Hardcopy
030 Alleghany	No	$ 835,524.98	25%	$ 208,881.25	1,433	No Response
040 Anson	No	$ 2,647,092.40	25%	$ 661,773.10	4,540	No Response
060 Avery	No	$ 1,398,760.94	25%	$ 349,690.24	2,399	No Response
080 Bertie	No	$ 2,150,908.34	25%	$ 537,727.09	3,689	No Response
090 Bladen	No	$ 3,309,448.56	25%	$ 827,362.14	5,676	No Response
100 Brunswick	No	$ 5,918,059.00	25%	$ 1,479,514.75	10,150	No Response
110 Buncombe	No	$ 14,465,718.60	25%	$ 3,616,429.65	24,810	No Response
111 Asheville City	No	$ 2,381,217.04	25%	$ 595,304.26	4,084	No Response
120 Burke	No	$ 8,345,337.78	25%	$ 2,086,334.45	14,313	No Response
130 Cabarrus	No	$ 10,770,284.32	25%	$ 2,692,571.08	18,472	No Response
140 Caldwell	No	$ 7,284,168.58	25%	$ 1,821,042.15	12,493	No Response

- LEAs with Data Received column "Yes" reported totals directly
- Other totals are extrapolated based on average totals reported by number of students

North Carolina Spend Data Collection Results
LEAs

Department	Data Received	Total	eP Factor	Adjusted Total	Attendance	Data Comments
150 Camden	No	$ 755,062.70	25%	$ 188,765.68	1,295	No Response
160 Carteret	No	$ 4,886,625.86	25%	$ 1,221,656.47	8,381	No Response
170 Caswell	No	$ 2,094,351.52	25%	$ 523,587.88	3,592	No Response
180 Catawba	No	$ 9,243,833.24	25%	$ 2,310,958.31	15,854	No Response
182 Newton-Conover	No	$ 1,590,587.68	25%	$ 397,646.92	2,728	No Response
190 Chatham	No	$ 4,034,192.14	25%	$ 1,008,548.04	6,919	No Response
210 Chowan	No	$ 1,482,138.52	25%	$ 370,534.63	2,542	No Response
220 Clay	No	$ 736,987.84	25%	$ 184,246.96	1,264	No Response
232 Shelby City	No	$ 1,911,853.74	25%	$ 477,963.44	3,279	No Response
260 Cumberland	No	$ 29,910,978.00	25%	$ 7,477,744.50	51,300	No Response
270 Currituck	No	$ 1,840,720.42	25%	$ 460,180.11	3,157	No Response
280 Dare	No	$ 2,691,988.02	25%	$ 672,997.01	4,617	No Response
290 Davidson	No	$ 10,967,358.60	25%	$ 2,741,839.65	18,810	No Response
291 Lexington City	No	$ 1,879,202.38	25%	$ 469,800.60	3,223	No Response
292 Thomasville City	No	$ 1,346,868.60	25%	$ 336,717.15	2,310	No Response
310 Duplin	No	$ 4,997,990.32	25%	$ 1,249,497.58	8,572	No Response
330 Edgecombe	No	$ 4,550,783.30	25%	$ 1,137,695.83	7,805	No Response
340 Forsyth	No	$ 25,324,628.04	25%	$ 6,331,157.01	43,434	No Response
360 Gaston	No	$ 17,734,936.02	25%	$ 4,433,734.01	30,417	No Response
370 Gates	No	$ 1,191,774.64	25%	$ 297,943.66	2,044	No Response
380 Graham	No	$ 699,088.94	25%	$ 174,772.24	1,199	No Response
400 Greene	No	$ 1,705,450.50	25%	$ 426,362.63	2,925	No Response
420 Halifax	No	$ 3,601,561.62	25%	$ 900,390.41	6,177	No Response
421 Roanoke Rapids City	No	$ 1,785,329.72	25%	$ 446,332.43	3,062	No Response
430 Harnett	No	$ 9,324,295.52	25%	$ 2,331,073.88	15,992	No Response
440 Haywood	No	$ 4,501,223.20	25%	$ 1,125,305.80	7,720	No Response
450 Henderson	No	$ 6,694,111.86	25%	$ 1,673,527.97	11,481	No Response
460 Hertford	No	$ 2,357,894.64	25%	$ 589,473.66	4,044	No Response
470 Hoke	No	$ 3,588,151.24	25%	$ 897,037.81	6,154	No Response
491 Mooresville City	No	$ 2,251,777.72	25%	$ 562,944.43	3,862	No Response
500 Jackson	No	$ 2,058,784.86	25%	$ 514,696.22	3,531	No Response
520 Jones	No	$ 888,000.38	25%	$ 222,000.10	1,523	No Response
540 Lenoir	No	$ 5,995,605.98	25%	$ 1,498,901.50	10,283	No Response
550 Lincoln	No	$ 6,088,312.52	25%	$ 1,522,078.13	10,442	No Response
560 Macon	No	$ 2,374,220.32	25%	$ 593,555.08	4,072	No Response

- LEAs with Data Received column "Yes" reported totals directly
- Other totals are extrapolated based on average totals reported by number of students

North Carolina Spend Data Collection Results
LEAs

Department	Data Received	Total	eP Factor	Adjusted Total	Attendance	Data Comments
570 Madison	No	$ 1,479,223.22	25%	$ 369,805.81	2,537	No Response
590 McDowell	No	$ 3,742,079.08	25%	$ 935,519.77	6,418	No Response
610 Mitchell	No	$ 1,392,347.28	25%	$ 348,086.82	2,388	No Response
620 Montgomery	No	$ 2,608,027.38	25%	$ 652,006.85	4,473	No Response
630 Moore	No	$ 6,405,497.16	25%	$ 1,601,374.29	10,986	No Response
640 Nash-Rocky Mount	No	$ 10,366,223.74	25%	$ 2,591,555.94	17,779	No Response
650 New Hanover	No	$ 12,499,640.28	25%	$ 3,124,910.07	21,438	No Response
660 Northampton	No	$ 2,205,132.92	25%	$ 551,283.23	3,782	No Response
670 Onslow	No	$ 12,239,595.52	25%	$ 3,059,898.88	20,992	No Response
680 Orange	No	$ 3,625,467.08	25%	$ 906,366.77	6,218	No Response
681 Chapel Hill City	No	$ 5,214,305.58	25%	$ 1,303,576.40	8,943	No Response
690 Pamlico	No	$ 1,068,748.98	25%	$ 267,187.25	1,833	No Response
700 Pasquotank	No	$ 3,531,594.42	25%	$ 882,898.61	6,057	No Response
710 Pender	No	$ 3,764,818.42	25%	$ 941,204.61	6,457	No Response
720 Perquimans	No	$ 1,043,094.34	25%	$ 260,773.59	1,789	No Response
730 Person	No	$ 3,428,975.86	25%	$ 857,243.97	5,881	No Response
740 Pitt	No	$ 11,613,389.08	25%	$ 2,903,347.27	19,918	No Response
750 Polk	No	$ 1,344,536.36	25%	$ 336,134.09	2,306	No Response
760 Randolph	No	$ 9,738,268.12	25%	$ 2,434,567.03	16,702	No Response
761 Asheboro City	No	$ 2,474,506.64	25%	$ 618,626.66	4,244	No Response
770 Richmond	No	$ 4,861,554.28	25%	$ 1,215,388.57	8,338	No Response
780 Robeson	No	$ 13,956,707.22	25%	$ 3,489,176.81	23,937	No Response
790 Rockingham	No	$ 14,325,784.20	25%	$ 3,581,446.05	24,570	No Response
800 Rowan	No	$ 11,714,841.52	25%	$ 2,928,710.38	20,092	No Response
810 Rutherford	No	$ 5,873,163.38	25%	$ 1,468,290.85	10,073	No Response
821 Clinton City	No	$ 1,489,135.24	25%	$ 372,283.81	2,554	No Response
830 Scotland	No	$ 4,078,504.70	25%	$ 1,019,626.18	6,995	No Response
840 Stanly	No	$ 5,923,306.54	25%	$ 1,480,826.64	10,159	No Response
850 Stokes	No	$ 4,209,693.20	25%	$ 1,052,423.30	7,220	No Response
860 Surry	No	$ 4,817,824.78	25%	$ 1,204,456.20	8,263	No Response
870 Swain	No	$ 999,947.90	25%	$ 249,986.98	1,715	No Response
880 Transylvania	No	$ 2,277,432.36	25%	$ 569,358.09	3,906	No Response
890 Tyrrell	No	$ 452,454.56	25%	$ 113,113.64	776	No Response
900 Union	No	$ 12,693,216.20	25%	$ 3,173,304.05	21,770	No Response
910 Vance	No	$ 4,589,265.26	25%	$ 1,147,316.32	7,871	No Response

- LEAs with Data Received column "Yes" reported totals directly
- Other totals are extrapolated based on average totals reported by number of students

North Carolina Spend Data Collection Results
LEAs

Department	Data Received	Total	eP Factor	Adjusted Total	Attendance	Data Comments
930 Warren	No	$ 1,896,111.12	25%	$ 474,027.78	3,252	No Response
940 Washington	No	$ 1,415,086.62	25%	$ 353,771.66	2,427	No Response
950 Watauga	No	$ 2,845,915.86	25%	$ 711,478.97	4,881	No Response
970 Wilkes	No	$ 5,804,362.30	25%	$ 1,451,090.58	9,955	No Response
990 Yadkin	No	$ 3,417,314.66	25%	$ 854,328.67	5,861	No Response
020 Alexander	No	$ 3,124,035.48	25%	$ 781,008.87	5,358	Unable to provide
070 Beaufort	No	$ 4,340,298.64	25%	$ 1,085,074.66	7,444	Unable to provide
200 Cherokee	No	$ 2,042,459.18	25%	$ 510,614.80	3,503	Unable to provide
231 Kings Mountain	No	$ 2,609,193.50	25%	$ 652,298.38	4,475	Unable to provide
240 Columbus	No	$ 4,274,412.86	25%	$ 1,068,603.22	7,331	Unable to provide
241 Whiteville City	No	$ 1,617,991.50	25%	$ 404,497.88	2,775	Unable to provide
350 Franklin	No	$ 4,377,614.48	25%	$ 1,094,403.62	7,508	Unable to provide
390 Granville	No	$ 4,635,910.06	25%	$ 1,158,977.52	7,951	Unable to provide
422 Weldon City	No	$ 674,017.36	25%	$ 168,504.34	1,156	Unable to provide
862 Mount Airy City	No	$ 1,176,615.08	25%	$ 294,153.77	2,018	Unable to provide
11 out of 117 LEAs reporting		**$946,124,226.73**		**$238,232,494.98**		**LEA Subtotal**

- LEAs with Data Received column "Yes" reported totals directly
- Other totals are extrapolated based on average totals reported by number of students

Appendix B:

NCAS Purchasing by Commodity

NCAS Purchases by Commodity
FY00

Commodity Code	Commodity Description	PO Lines	PO Totals
5	ABRASIVES	92	$ 33,601
10	ACOUSTICAL TILE, INSULATING MATERIALS AND SUPPLIES	1,017	$ 389,684
15	COPYING AND DUPLICATING CHEMICALS & SUPPLIES (EXCEPT PAPER)	1,887	$ 1,085,875
19	AGRICULTURAL CROPS & GRAINS	79	$ 109,365
20	AGRICULTURAL FARM EQUIPMENT AND ACCESSORIES	657	$ 1,841,593
22	AGRICULTURAL EQUIPMENT & ACCESSORY PARTS	575	$ 248,705
25	AIR COMPRESSORS AND ACCESSORIES	221	$ 99,974
31	AIR CONDITIONING, HEATING & VENTILATING EQUIPMENT, ETC.	1,751	$ 1,628,521
35	AIRCRAFT & AIRPORT EQUIPMENT, PARTS & SUPPLIES	169	$ 980,777
37	AMUSEMENT, DECORATIONS, ENTERTAINMENT, TOYS, ETC.	2,060	$ 773,082
40	ANIMALS, BIRDS, MARINE LIFE & POULTRY (LIVE)	111	$ 124,412
45	HOUSEHOLD APPLIANCES AND EQUIPMENT	1,082	$ 603,083
50	ART EQUIPMENT & SUPPLIES	613	$ 65,140
52	ART OBJECTS	325	$ 118,627
55	AUTOMOTIVE ACCESSORIES FOR AUTOMOBILES, BUSES, TRUCKS, ETC.	1,093	$ 2,632,261
60	AUTOMOTIVE MAINTENANCE ITEMS & REPAIR/REPLACEMENT PARTS	3,454	$ 3,081,344
65	AUTOMOTIVE BODIES, ACCESSORIES & PARTS	237	$ 11,864,666
70	AUTOMOTIVE VEHICLES & RELATED TRANSPORTATION EQUIPMENT	1,153	$ 95,398,138
75	AUTOMOTIVE SHOP EQUIPMENT AND SUPPLIES	1,383	$ 604,252
80	BADGES, EMBLEMS, NAME TAGS AND PLATES, JEWELRY, ETC.	4,559	$ 651,569
85	BAGS, BAGGING, TIES AND EROSION CONTROL EQUIPMENT	355	$ 382,726
90	COMMERCIAL BAKERY EQUIPMENT	55	$ 349,569
95	BARBER AND BEAUTY SHOP EQUIPMENT AND SUPPLIES	891	$ 110,434
100	BARRELS, DRUMS, KEGS AND PAIL TYPE CONTAINERS	590	$ 804,952
105	BEARINGS (EXCEPT WHEEL BEARINGS & SEALS - SEE CLASS 060)	148	$ 25,992
110	BELTS & BELTING: CONVEYOR, ELEVATOR, POWER TRANS & V-BELTS	153	$ 9,886

NCAS Purchases by Commodity
FY00

Commodity Code	Commodity Description	PO Lines	PO Totals
115	RESEARCH BIOCHEMICALS	327	$ 479,349
120	BOATS, MOTORS AND MARINE & WILDLIFE SUPPLIES	634	$ 1,481,835
125	BOOKBINDING SUPPLIES	189	$ 45,461
135	BRICKS & OTHER CLAY PRODUCTS, REFRACT MAT., AND STONE PRODS	114	$ 100,870
140	BROOM, BRUSH & MOP MANUFACTURING MACHINERY & SUPPLIES	109	$ 21,269
145	BRUSHES (NOT OTHERWISE CLASSIFIED)	589	$ 116,998
150	BUILDERS' SUPPLIES	680	$ 506,868
155	BUILDINGS & STRUCTURES: FABRICATED & PREFABRICATED	191	$ 445,496
160	BUTCHER SHOP AND MEAT PROCESSING EQUIPMENT	151	$ 31,083
165	COMMERCIAL CAFETERIA & KITCHEN EQUIPMENT	1,022	$ 1,020,245
175	CHEMICAL LABORATORY EQUIPMENT AND SUPPLIES	6,449	$ 3,431,846
180	CHEMICALS FOR JANITORIAL & LAUNDRY PRODUCTS MANUFACT	239	$ 1,393,119
190	COMMERCIAL CHEMICALS AND SOLVENTS (IN BULK)	298	$ 198,715
192	CLEANING COMPOSITIONS, DETERGENTS, SOLVENTS & STRIPPERS	56	$ 17,124
193	CLINICAL LABORATORY REAGENTS & TESTS	745	$ 1,811,246
195	CLOCKS, TIMERS, WATCHES & WATCHMAKERS TOOLS & EQUIP	181	$ 79,029
200	CLOTHING, APPAREL, UNIFORMS & ACCESSORIES	4,151	$ 8,435,422
201	CLOTHING, ACCESSORIES	2,042	$ 2,561,816
204	COMPUTER HARDWARE & PERIPHERALS FOR MICROCOMPUTERS	7,456	$ 28,885,749
206	COMPUTER HARDWARE & PERIPHERALS FOR MINI & MAINFRAME COMPUTERS	1,439	$ 6,470,450
207	COMPUTER ACCESSORIES & SUPPLIES	4,762	$ 2,152,916
208	COMPUTER SOFTWARE (PREPROGRAMMED) FOR MICROCOMPUTERS	1,983	$ 4,179,161
209	COMPUTER SOFTWARE (PREPROGRAMMED) FOR MINI & MAINFRAME COMP	360	$ 1,926,442
210	CONCRETE & METAL CULVERTS, PILINGS, ETC.	222	$ 380,668
220	CONTROLLING, INDICATING, MEASURING, ETC.	269	$ 1,292,296
225	WATER COOLERS (WATER FOUNTAINS) FOR DRINKING	70	$ 134,183

NCAS Purchases by Commodity
FY00

Commodity Code	Commodity Description	PO Lines		PO Totals
232	CRAFTS, GENERAL	945	$	71,118
233	CRAFTS, SPECIALIZED	86	$	16,033
240	CUTLERY, DISHES, FLATWARE, GLASSWARE, TRAYS, ETC.	1,549	$	931,185
245	DAIRY EQUIPMENT AND SUPPLIES	133	$	41,448
250	DATA PROCESSING CARDS & PAPER	280	$	1,005,025
255	DECALS AND STAMPS	116	$	263,109
260	DENTAL EQUIPMENT AND SUPPLIES	3,353	$	407,101
265	DRAPERIES, CURTAINS AND UPHOLSTERY MATERIAL (INCLUDING AUTO)	509	$	761,286
269	DRUGS & PHARMACEUTICALS	1,166	$	33,227,999
271	DRUGS, PHARMACEUTICALS & SETS (FOR LARGE-VOLUME INFUSION, ETC.)	735	$	2,015,069
280	ELECTRICAL CABLES AND WIRES (NOT ELECTRONIC)	390	$	217,998
285	ELECTRICAL EQUIPMENT AND SUPPLIES (NOT CABLE & WIRE)	3,938	$	1,818,471
287	ELECTRONIC COMPONENTS, PARTS & ACCESSORIES	1,077	$	2,052,799
290	ENERGY COLLECTING EQUIPMENT & ACCESSORIES	2	$	38,530
295	ELEVATORS & ESCALATORS, BUILDING TYPE	7	$	45,202
305	ENGINEERING & SURVEYING EQUIPMENT, DRAWING SUPPLIES	414	$	241,279
310	ENVELOPES, PLAIN OR PRINTED"	1,518	$	2,150,406
315	EPOXY BASED FORMULATIONS FOR ADHESIVES, & RELATED AGENTS	82	$	31,179
318	FARE COLLECTION EQUIPMENT & SUPPLIES	284	$	79,311
320	FASTENING, PACKAGING, STRAPPING & SUPPLIES	1,709	$	143,783
325	ANIMAL FEED, BEDDING, VITAMINS & SUPPLEMENTS	1,162	$	2,668,891
330	FENCING	350	$	161,640
335	FERTILIZERS AND SOIL CONDITIONERS	329	$	606,763
340	FIRE PROTECTION EQUIPMENT & SUPPLIES	715	$	465,572
345	FIRST-AID & SAFETY EQUIPMENT & SUPPLIES	2,140	$	1,299,762
350	FLAGS, FLAGPOLES, BANNERS AND ACCESSORIES	206	$	120,142

NCAS Purchases by Commodity
FY00

Commodity Code	Commodity Description	PO Lines	PO Totals
360	FLOOR COVERING, FLOOR COVERING INSTALL & REMOVAL EQUIP	487	$ 1,191,812
365	FLOOR MAINTENANCE MACHINES, PARTS & ACCESSORIES	373	$ 227,708
370	FOOD PROCESSING AND CANNING EQUIPMENT & SUPPLIES	139	$ 1,008,113
375	FOODS: BAKERY PRODUCTS (FRESH)	1,453	$ 2,368,959
380	FOODS: DAIRY PRODUCTS (FRESH)	738	$ 3,415,246
385	FOODS: FROZEN	1,891	$ 2,735,887
390	FOODS: PERISHABLE	3,937	$ 9,754,143
393	FOODS: STAPLE GROCERY & CROCER'S MISCELLANEOUS ITEMS	9,647	$ 14,922,256
395	FORMS, CONTINUOUS: COMPUTER PAPER, FORM LABELS, ETC.	945	$ 1,395,899
400	FOUNDRY CASTINGS, EQUIPMENT & SUPPLIES	8	$ 3,565
405	FUEL, OIL GREASE & LUBRICANTS	1,146	$ 6,242,109
410	FURNITURE: HEALTH CARE & HOSPITAL FACILITY	378	$ 897,983
415	FURNITURE: LABORATORY	97	$ 117,269
420	FURNITURE: CAFETERIA, CHAPEL, DORMITORY, HOUSEHOLD, ETC.	1,296	$ 2,463,699
425	FURNITURE: OFFICE	5,246	$ 6,168,767
430	GASES, CONTAINERS & EQUIPMENT: LABORATORY, MEDICAL & WELDING	333	$ 234,335
435	GERMICIDES, CLEANERS & RELATED SANIT. PROD. FOR HEALTH CARE	90	$ 141,939
440	GLASS AND GLAZING SUPPLIES	202	$ 137,530
445	HAND TOOLS (POWERED & NON-POWERED), ACCESSORIES & SUPPLIES	2,729	$ 519,185
450	HARDWARE AND RELATED ITEMS	3,194	$ 1,986,518
460	HOSE, ACCESSORIES & SUPPLIES: INDUSTRIAL, COMMERCIAL & GARDEN	350	$ 51,889
465	HOSPITAL & SURGICAL EQUIPMENT, INSTRUMENTS & SUPPLIES	6,352	$ 4,425,250
470	HOSPITAL & HANDICAP EQUIP. & SUPPLIES: MOBILITY, SPEECH, ETC.	1,153	$ 1,436,142
475	HOSPITAL, SURGICAL & RELATED MEDICAL ACCESSORIES AND SUNDRY ITEMS	3,602	$ 2,144,458
485	JANITORIAL SUPPLIES, GENERAL LINE	2,915	$ 4,210,432
490	LAB EQUIPMENT & ACCESSORIES FOR GENERAL USE	266	$ 528,661

NCAS Purchases by Commodity
FY00

Commodity Code	Commodity Description	PO Lines	PO Totals
493	LAB EQUIPMENT & ACCESSORIES: BIOCHEM, CHEM, ENVIRON	360	$ 1,096,276
495	LAB & FIELD EQUIP: BIOLOGY, BOTANY, GEOLOGY, MICROBIOLOGY,ETC.	232	$ 290,059
500	COMMERCIAL LAUNDRY AND DRY CLEANING EQUIP, ACCESS, PARTS & SUPPLI	281	$ 293,215
505	LAUNDRY AND DRY CLEANING COMPOUNDS & SUPPLIES	482	$ 1,696,857
510	LAUNDRY TEXTILES AND SUPPLIES	214	$ 127,912
515	LAWN MAINTENANCE EQUIP., ACCESSORIES & PARTS	691	$ 451,465
520	LEATHER & RELATED EQUIPMENT, PRODUCTS, ACCESSORIES & SUPPLIES	214	$ 80,618
525	LIBRARY AND ARCHIVAL EQUIPMENT, MACHINES AND SUPPLIES	1,029	$ 153,555
530	LUGGAGE, BRIEF CASES, PURSES & RELATED ITEMS	258	$ 92,431
540	LUMBER & RELATED PRODUCTS	1,316	$ 965,279
545	MACHINERY AND HARDWARE, INDUSTRIAL	612	$ 792,068
550	MARKERS, PLAQUES, AND TRAFFIC CONTROL DEVICES	360	$ 6,175,635
555	MARKING & STENCILING DEVICES	11	$ 6,855
557	MASS TRANSPORTATION - TRANSIT BUS ACCESSORIES & PARTS	648	$ 318,252
558	MASS TRANSPORTATION - RAIL VEHICLES & SYSTEMS	9	$ 33,624
559	MASS TRANSPORTATION - RAIL VEHICLE PARTS & ACCESSORIES	98	$ 29,391
560	MATERIAL HANDLING & STORAGE EQUIPMENT AND ALLIED ITEMS	509	$ 1,152,989
565	MATTRESS MANUFACTURING MACHINERY AND SUPPLIES	18	$ 2,975
570	METALS: BARS, PLATES, RODS, SHEETS, STRIPS, TUBING	1,011	$ 3,114,764
575	MICROFICHE & MICROFILM EQUIPMENT, ACCESSORIES AND SUPPLIES	113	$ 160,741
578	MISC. EQUIPMENT: TOLL COLLECTION, RECYCLING, ELECTION, ETC.	197	$ 99,394
580	MUSICAL INSTRUMENTS, ACCESSORIES AND SUPPLIES	297	$ 53,464
590	NOTIONS AND RELATED SEWING ACCESSORIES & SUPPLIES	682	$ 375,127
595	NURSERY STOCK, EQUIPMENT & SUPPLIES	986	$ 470,943
600	OFFICE MACHINES, OFFICE EQUIPMENT AND ACCESSORIES	3,351	$ 3,257,667
605	OFFICE MECHANICAL AIDS, SMALL MACHINES & APPARATUSES	1,002	$ 225,905

NCAS Purchases by Commodity
FY00

Commodity Code	Commodity Description	PO Lines		PO Totals
610	OFFICE SUPPLIES: CARBON PAPER & RIBBONS, ALL TYPES	959	$	289,670
615	OFFICE SUPPLIES: GENERAL	22,709	$	5,745,645
620	OFFICE SUPPLIES: ERASERS, INKS, LEADS, PENS, PENCILS, ETC.	2,538	$	452,530
625	OPTICAL EQUIPMENT, ACCESSORIES & SUPPLIES	572	$	4,282,954
630	PAINT, PROTECTIVE COATINGS, VARNISH, WALLPAPER & RELATED PRODUCTS	851	$	4,026,032
635	PAINTING EQUIPMENT & ACCESSORIES	260	$	81,408
640	DISPOSABLE PAPER & PLASTIC PRODUCTS	2,266	$	4,389,355
645	PAPER, FOR OFFICE & PRINT SHOP USE	2,793	$	4,155,996
650	PARK, PLAYGROUND, RECREATIONAL AREA AND SWIMMING POOL EQUIP	141	$	178,870
652	PERSONAL HYGIENE & GROOMING EQUIPMENT & SUPPLIES	1,354	$	530,522
655	PHOTOGRAPHIC EQUIP. & SUPPLIES	1,359	$	526,506
658	PIPE & TUBING	457	$	88,228
659	PIPE & TUBING FITTINGS	825	$	97,168
660	PIPES, TOBACCO, SMOKING ACCESSORIES; ALCOHOLIC BEVERAGES	27	$	7,188
665	PLASTICS, RESINS, FIBERGLASS: CONSTRUCTION, LAMINATING	829	$	578,159
670	PLUMBING EQUIPMENT, FIXTURES AND SUPPLIES	1,996	$	1,217,624
675	POISONS: AGRICULTURAL & INDUSTRIAL	321	$	1,614,102
680	POLICE EQUIPMENT AND SUPPLIES	1,267	$	2,070,127
685	POULTRY EQUIPMENT AND SUPPLIES	27	$	48,073
690	POWER GENERATION EQUIPMENT - ELEC, MECHAN, AIR & HYDRAULIC	269	$	388,482
691	POWER TRANSMISSION EQUIPMENT - ELEC, MECHAN, AIR & HYDRAULIC	206	$	54,908
700	PRINTING PLANT EQUIPMENT AND SUPPLIES (EXCEPT PAPERS)	722	$	832,974
710	PROSTHETIC DEVICES, HEARING AIDS, AUDITORY TESTING EQUIP.	372	$	506,587
715	PUBLICATIONS & AUDIOVISUAL MATERIALS	8,159	$	62,236,433
720	PUMPING EQUIPMENT & ACCESSORIES	219	$	243,477
725	RADIO, TELEPHONE & TELECOMM EQUIP AND ACCESS & SUPPLIES	4,041	$	9,703,520

NCAS Purchases by Commodity
FY00

Commodity Code	Commodity Description	PO Lines	PO Totals
730	RADIO & TELECOMMUNICATION TESTING, MEASURING & ANALYZING EQUIP	84	$ 65,040
735	RAGS, SHOP TOWELS AND WIPING CLOTHS	167	$ 97,667
740	REFRIGERATION EQUIPMENT AND ACCESSORIES	284	$ 575,641
745	ROAD AND HIGHWAY BUILDING MATERIALS (ASPHALTIC)	9	$ 1,800
750	ROAD AND HIGHWAY BUILDING MATERIALS (NOT ASPHALT)	231	$ 293,110
755	ROAD AND HIGHWAY EQUIPMENT: ASPHALT AND CONCRETE HANDLING	30	$ 43,180
760	ROAD AND HIGHWAY EQUIPMENT: EARTH HANDLING (GRADING, MOVING ETC)	147	$ 397,689
765	ROAD AND HIGHWAY EQUIPMENT: EXCEPT ASPHALT, EARTH & CONCRETE HAN	722	$ 966,961
770	ROOFING	329	$ 210,804
775	SALT - SODIUM CHLORIDE (SEE CLASS 393 FOR TABLE SALT)	36	$ 27,618
780	SCALES AND WEIGHING APPARATUS (SEE CLASS 175 FOR LABORATORY BALAN	121	$ 80,215
785	SCHOOL EQUIPMENT AND SUPPLIES	5,492	$ 2,381,318
790	SEED, SOD, SOIL AND INOCULANTS	230	$ 224,052
795	SEWING ROOM AND TEXTILE MACHINERY AND ACCESSORIES	70	$ 172,999
800	SHOES AND BOOTS	1,501	$ 2,650,642
801	SIGNS, SIGN MATERIALS, SIGN MAKING EQUIP & RELATED SUPPLIES	848	$ 579,819
803	SOUND SYSTEMS, COMPONENTS & ACCESS: INTERCOM, MUSIC, PUBLIC ADDR	293	$ 369,712
805	SPORTING GOODS, ATHLETIC EQUIPMENT & ATHLETIC FACILITY EQUIP	821	$ 787,983
810	SPRAYING EQUIPMENT (EXCEPT HOUSEHOLD, NURSERY PLANT AND PAINT)	125	$ 80,515
815	STEAM AND HOT WATER FITTINGS, ACCESSORIES AND SUPPLIES	308	$ 169,962
820	STEAM & HOT WATER BOILERS AND STEAM HEATING EQUIPMENT	333	$ 206,059
825	STOCKMAN EQUIPMENT & SUPPLIES	123	$ 86,882
830	TANKS (METAL, WOOD, SYNTHETIC MATLS): MOBILE, PORTABLE, STATION	56	$ 70,523
832	TAPE (EXCLUDING DATA PROCESSING, MEASURING, OPT, SEWING, ETC)	458	$ 100,089
840	TELEVISION EQUIPMENT AND ACCESSORIES	1,429	$ 2,204,097
845	TESTING APPARATUS & INSTRUMENTS (NOT FOR ELEC OR ELECTRONIC MEASU	32	$ 27,569

NCAS Purchases by Commodity
FY00

Commodity Code	Commodity Description	PO Lines	PO Totals
850	TEXTILES, FIBERS, PIECE GOODS AND HOUSEHOLD LINENS	1,123	$ 6,646,451
855	THEATRICAL EQUIPMENT AND SUPPLIES	44	$ 110,491
860	TICKETS, COUPON BOOKS, SCRIPT BOOKS, SALES BOOKS, ETC.	13	$ 1,293
863	TIRES AND TUBES	1,210	$ 1,408,616
864	TRAIN CONTROLS, ELECTRONIC	2	$ 1,302
865	TWINE	34	$ 15,941
870	VENETIAN BLINDS, SHADES AND AWNINGS	271	$ 198,727
875	VETERINARY EQUIPMENT AND SUPPLIES (SEE CLASS 325)	1,562	$ 1,537,755
880	VISUAL EDUCATION EQUIPMENT AND SUPPLIES	592	$ 1,017,574
883	VOICE RESPONSE SYSTEMS	63	$ 1,060,574
885	WATER & WASTEWATER TREATING CHEMICALS	376	$ 398,468
890	WATER SUPPLY, GROUNDWATER & SEWAGE TREATMENT EQUIPMENT	215	$ 219,015
895	WELDING EQUIPMENT & SUPPLIES	382	$ 118,095
898	X-RAY & OTHER RADIOLOGICAL EQUIPMENT & SUPPLIES (MEDICAL)	486	$ 1,265,649
905	AIRCRAFT OPERATIONS SERVICES	38	$ 319,859
906	ARCHITECTURAL SERVICES, PROFESSIONAL	269	$ 536,810
907	ARCHITECTURAL & ENGINEERING SERVICES, NON-PROFESSIONAL	311	$ 9,511,401
908	BOOKBINDING, REBINDING & REPAIR	52	$ 473,901
909	BUILDING CONSTRUCTION SERVICES, NEW	1,426	$ 48,528,870
910	BUILDING MAINTENANCE & REPAIR SERVICES	2,725	$ 8,855,249
912	CONSTRUCTION SERVICES, GENERAL	59	$ 76,180
913	CONSTRUCTION SERVICES, HEAVY	237	$ 472,009
914	CONSTRUCTION SERVICES, TRADE (NEW CONSTRUCTION)	2,545	$ 1,230,445
915	COMMUNICATIONS & MEDIA RELATED SERVICES	2,017	$ 3,060,006
918	CONSULTING SERVICES	2,065	$ 43,633,202
920	DATA PROCESSING SERVICES & SOFTWARE DEVELOPMENT & IMPLEMENT	5,380	$ 87,320,724

NCAS Purchases by Commodity
FY00

Commodity Code	Commodity Description	PO Lines	PO Totals
924	EDUCATIONAL SERVICES	1,295	$ 5,520,188
925	ENGINEERING SERVICES, PROFESSIONAL	242	$ 1,556,631
926	ENVIRONMENTAL & ECOLOGICAL SERVICES	278	$ 549,183
928	EQUIP. MAINT, RECOND & REPAIR: AUTOS, TRUCKS, BUSES, ETC.	836	$ 1,961,763
929	EQUIP. MAINT, RECOND & REPAIR: AGRICULTURE, MARINE & INDUSTRIAL	748	$ 500,636
931	EQUIP. MAINT, RECOND & REPAIR: APPLIANCE, FURNITURE, SEWING, ETC	1,227	$ 699,957
934	EQUIP. MAINT, RECOND & REPAIR: LAUNDRY, PLUMBING, LAWN, PAINTING	1,669	$ 592,564
936	EQUIP. MAINT, RECOND & REPAIR: GENERAL EQUIPMENT	4,745	$ 1,737,850
938	EQUIP. MAINT, RECOND & REPAIR: HOSPITAL, LABORATORY & TESTING	2,867	$ 3,308,363
939	EQUIP. MAINT, RECOND & REPAIR: OFFICE, PHOTOGRAPHIC & RADIO/TV	8,991	$ 31,997,420
940	EQUIP. MAINT, REPAIR, CONSTRUCTION - RAILROAD	220	$ 1,301,195
941	EQUIP. MAINT, REPAIR, CONSTRUCTION - POWER GENERATION	611	$ 484,357
945	FISHING, HUNTING, TRAPPING, GAME PROPAGATION & RELATED SERVICES	8	$ 1,495
946	FINANCIAL SERVICES	320	$ 5,855,284
947	FORESTRY SERVICES	11	$ 173,371
948	HEALTH RELATED SERVICES (SEE CLASS 952 FOR HUMAN SERVICES)	5,821	$ 43,984,803
952	HUMAN SERVICES	3,121	$ 85,023,675
953	INSURANCE, ALL TYPES	97	$ 131,851
954	LAUNDRY & DRY CLEANING SERVICES	29	$ 310,554
956	LIBRARY SERVICES (SEE CLASS 908 FOR BOOKBINDING)	802	$ 800,234
958	MANAGEMENT SERVICES	178	$ 3,593,191
959	MARINE CONSTRUCTION & MAINTENANCE SERVICES	101	$ 299,271
961	MISCELLANEOUS PROFESSIONAL SERVICES	7,176	$ 609,677,753
962	MISCELLANEOUS SERVICES	2,542	$ 8,257,485
965	PRINTING PREP.: ETCHING, PHOTOENGRAVING, & PREP.	80	$ 923,770
966	PRINTING & RELATED SERVICES	3,724	$ 10,931,435

NCAS Purchases by Commodity
FY00

Commodity Code	Commodity Description	PO Lines	PO Totals	
968	PUBLIC WORKS & RELATED SERVICES	144	$	279,939
971	REAL PROPERTY RENTAL OR LEASE	1,178	$	16,917,059
975	EQUIPMENT RENTAL OR LEASE: AGRICULT, AIRCRAFT, AUTO, MARINE	219	$	1,296,002
977	EQUIPMENT RENTAL OR LEASE: APPLIANCES, CAFETERIA, FURNITURE, ETC.	216	$	183,002
979	EQUIPMENT RENTAL OR LEASE: HOSPITAL, LABORATORY, REFRIG, TESTING,	486	$	1,243,371
981	EQUIPMENT RENTAL OR LEASE: GENERAL EQUIPMENT	860	$	628,382
983	EQUIPMENT RENTAL OR LEASE: JANITORIAL, LAUNDRY, TEXTILE, PAINTING	77	$	356,924
984	RENTAL OR LEASE OF COMPUTERS, DATA PROCESS & WORD PROCESS EQUIPME	373	$	3,954,016
985	EQUIPMENT RENTAL OR LEASE: OFFICE, PHOTOGRAPHIC, PRINTING, RADIO/	1,675	$	2,660,874
988	ROADSIDE, GROUNDS, RECREATIONAL & PARK AREA SERVICES	361	$	413,939
989	SAMPLING & SAMPLE PREPARATION SERVICES (FOR TESTING)	79	$	30,547
990	SECURITY, FIRE, SAFETY & EMERGENCY SERVICES	130	$	1,318,040
992	TESTING & CALIBRATION SERVICES	106	$	373,567

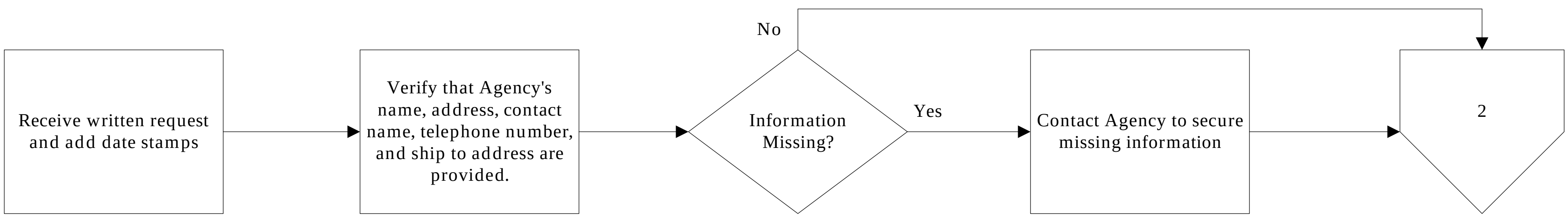
293,539	$	1,517,813,232

Appendix C:

Business Process Flows

Administrative Assistant

Note:
- Agency delegations for ITS goods are generally $25,000 but may be altered at an agency's request with ITS approval



-Agency hand carries or faxes written request form

-Phone agency to obtain necessary information
-Contact information must be complete before the request can proceed

Administrative Assistant

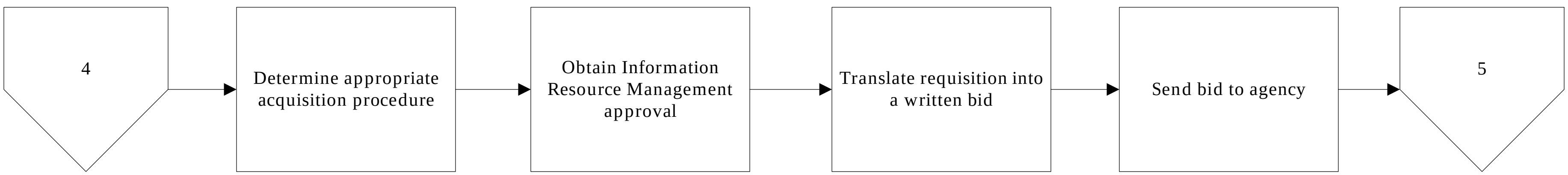
Logged info:
-Requesting agency
-Date received by ITS
-Procurement Rep
-Agency Requisition Number
-Goods Service Code
-Estimated amount
-Description

-Hand deliver with tracking numbers indicated on requisition

Statewide Procurement Coordinator

-IT Hardware and Hardware Support = Angie Dunaway
-IT Software, Software Licenses, and Software Support = Patti
-Telecommunications, Copiers, and Fax Machines = Releata

ITS Contract Specialist



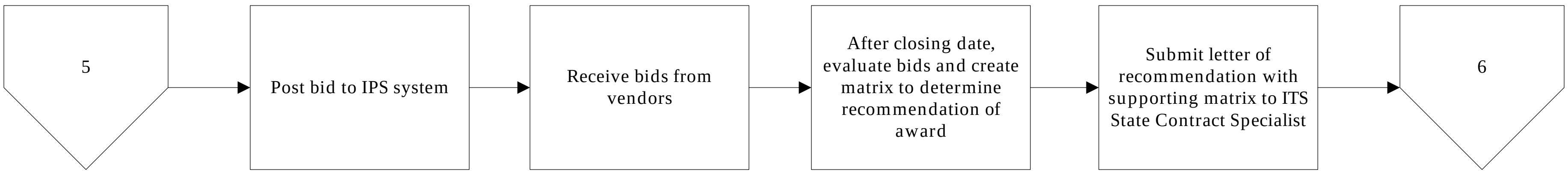
Acquisition procedures:
-Process order from Term Contract (existing)
-Establish new term contract (statewide or agency specific)
-Process Open Market for Goods
-Process Open Market for Services

-Fax, email, or interoffice mail to IRM the bid and supporting documentation such as brand specific or sole source justification and specs
-Receive approval via fax, email, or interoffice mail from IRM

-Write bid in MS Word

-Send bid courtesy copy via email to the requesting agency purchasing office

Agency



Post bid to IPS system

-Convert bid to PDF format
-Select a commodity category when posting to IPS
-Interactive Purchasing System electronically sends notices to vendors of new bids in the category they registered
-If vendors cannot download from IPS, they can request a hardcopy of the bid

Receive bids from vendors

-Receive vendor responses in hardcopy through mail, FedEx, or hand delivering

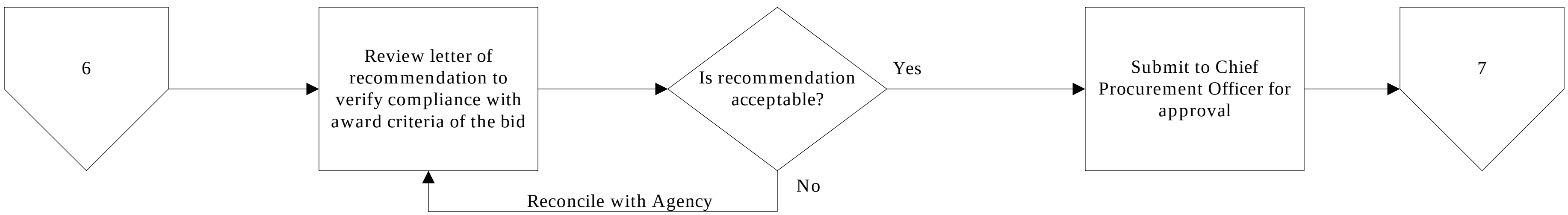
After closing date, evaluate bids and create matrix to determine recommendation of award

-Record name and price; or just name of offeror dependant upon solicitation type
-Create matrix based on the method selected to determine award
-Use either the Trade-off method or the Lowest Price Technically Acceptable method of source selection
-Refer to policies 22 and 23 for method descriptions

Submit letter of recommendation with supporting matrix to ITS State Contract Specialist

-Recommendation must have matrix / basis for decision for review of ITS State Contract Specialist

ITS Contract Specialist

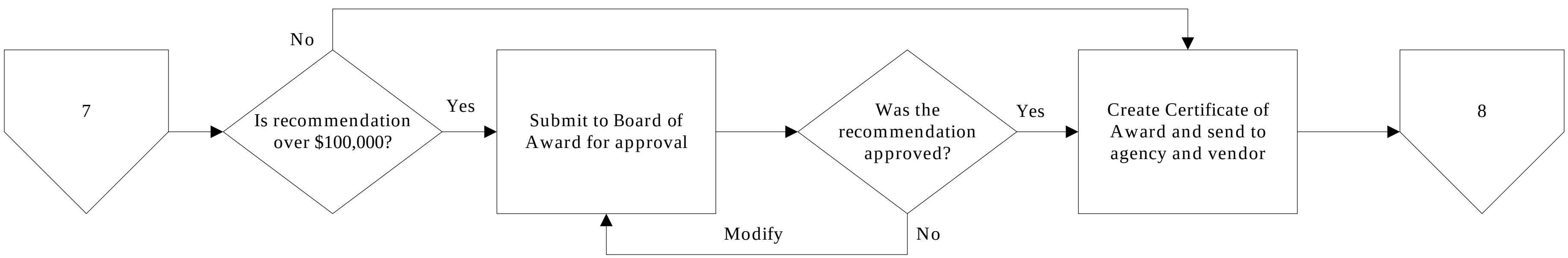


-Award of contract must be based on the criteria set out in the bid
-Should there be a tie between two vendors, the procedures outlined in ITS policies apply

-Could involve several iterations of this before recommendation is deemed acceptable

-Submit all documents to Chief Procurement Officer including approval notices, bids, matrices, letter of recommendation, and specs

ITS Contract Specialist



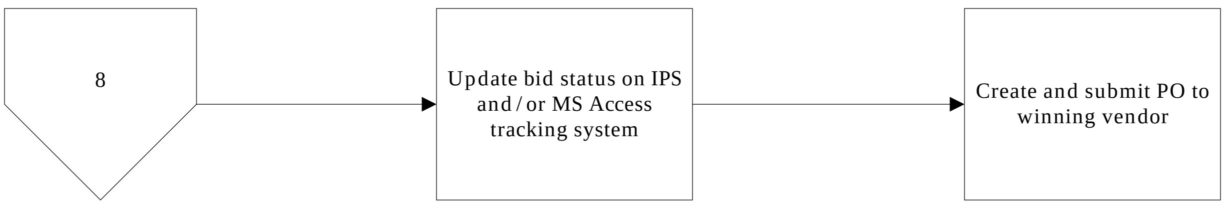
-If under $100,000 the only remaining approval comes from the Chief Procurement Officer
-If over $100,000 then additional approval is required from the Board of Award
-If over $100,000 and originating from the ITS agency then approval of Office of Management and Budget is required

-Attend Board of Award meeting with approval notices, bids, matrices, letter of recommendation, and specs

-If the requisition is not approved, it must be modified to meet approval before it can proceed

-MS Word based document
-Certificate of Award is sent to the agency and vendor first by email, then by fax, and a final follow-up with a hard-copy.

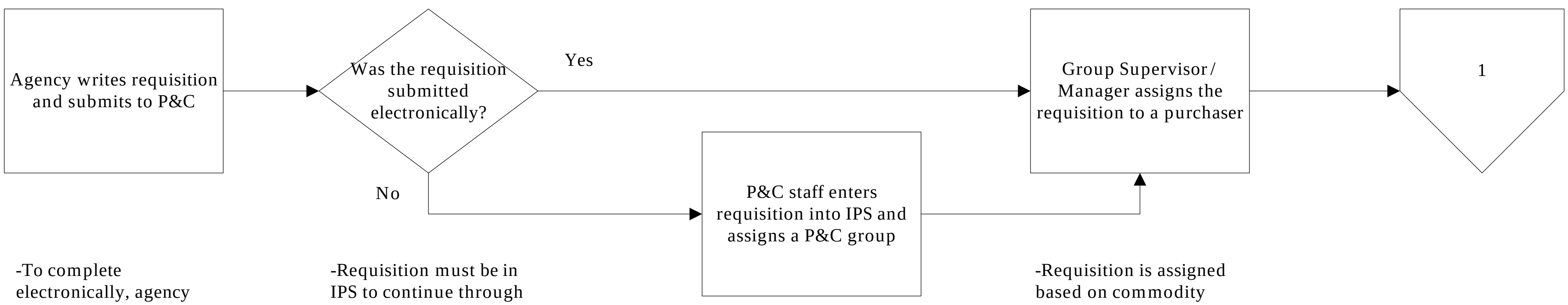
Agency



-Create PO once decision to purchase has been made
-Can only submit to awarded vendor(s)

Note:

- Agency delegations for P&C goods are generally $10,000 but may be altered at an agency's request with P&C approval



-To complete electronically, agency purchaser uses IPS Inbox to enter requisition
- Non-electronic requisitions are also acceptable

-Requisition must be in IPS to continue through system
- If submitted electronically, status is listed as received from agency

- Central services personnel creates electronic requisition in IPS
- Central services personnel assigns to group

-Requisition is assigned based on commodity
-IPS status listed as "Assigned to Purchaser"

1 → P&C purchaser converts the requisition into the bid in IPS → P&C purchaser posts bid to IPS → IPS automatically notifies vendors of bid → Vendors submit bids → 2

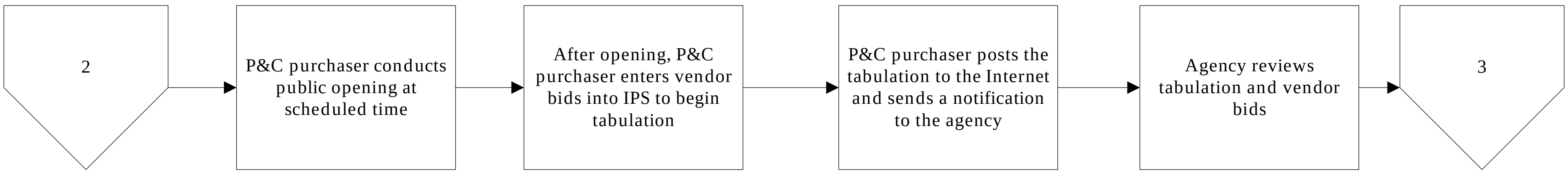
9

- Purchaser selects the start bid option from the requisition
- Purchaser inputs bid open date, adds standard paragraphs, and then instructs IPS to create a bid document

-IPS status listed as "Bid Posted to Internet"

-Vendors will be notified automatically based on the commodity codes they selected for notification through Vendor Link
-Vendors can also be notified through other means (i.e. a buyer calling a known previous vendor who is not online but would still like to compete)

- Vendors submit sealed bids by mail or hand deliver to P&C

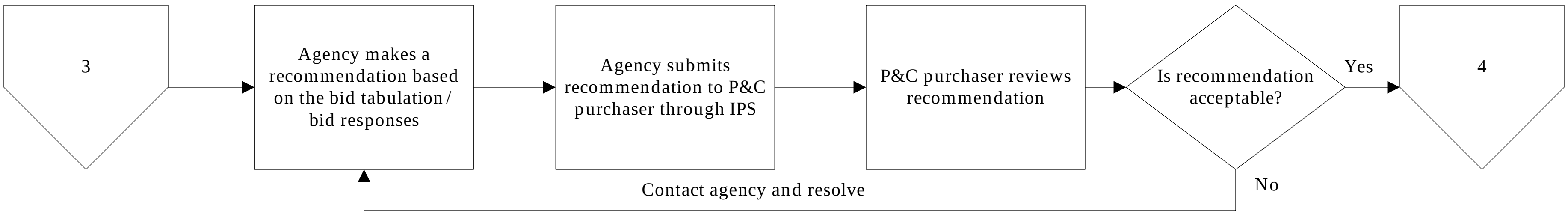


- Purchaser opens all submitted bids and announces select information of each bid
- Vendors may attend

- Purchaser enters all bids into IPS
- Tabulation is created by IPS

- Email notification is sent to the agency purchaser who created the requisition that the tabulation is online and ready for review

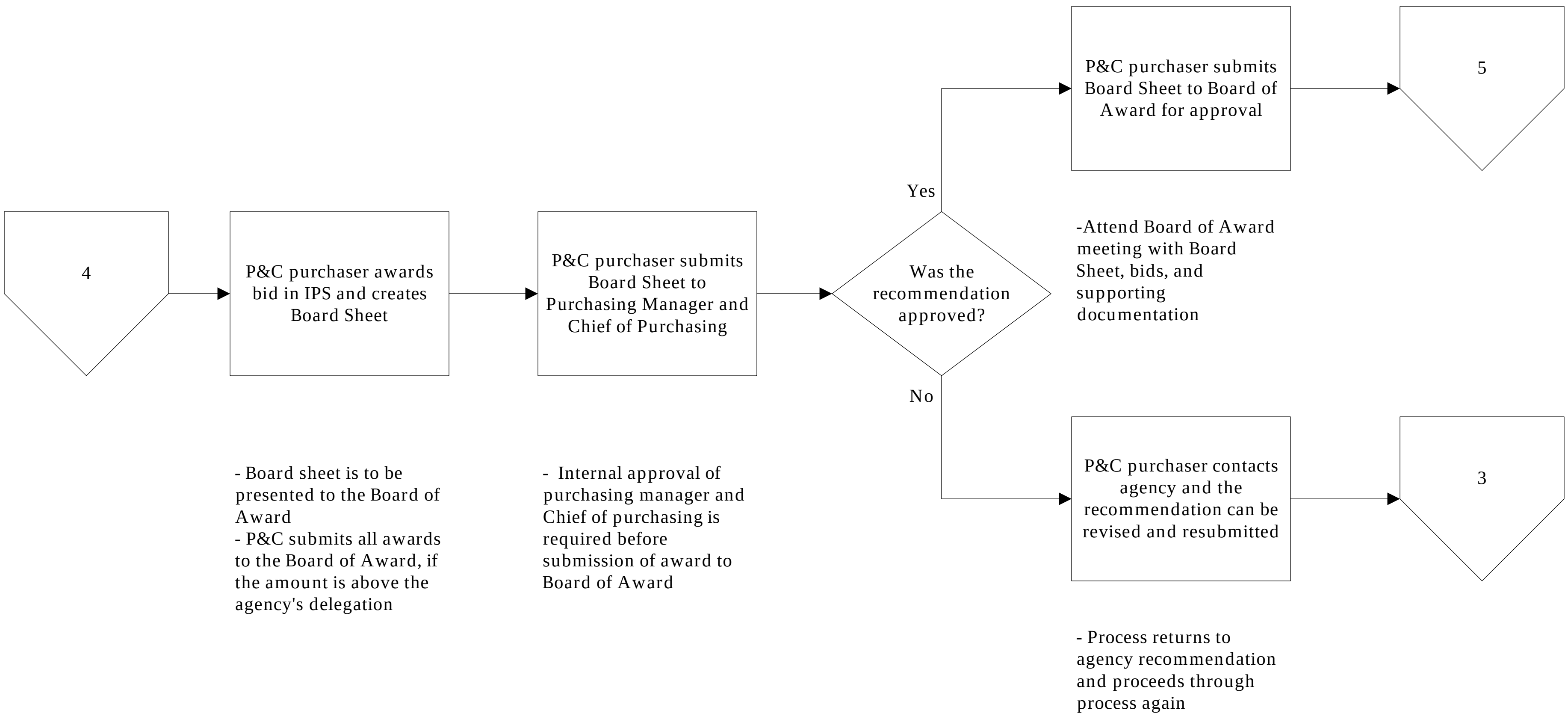
-Agency purchaser must review options to determine winning vendor(s) based on award criteria
- Tabulation is viewed online
- Hard copies of the vendor bids are sent via interoffice mail to the agency to assist in creating a recommendation

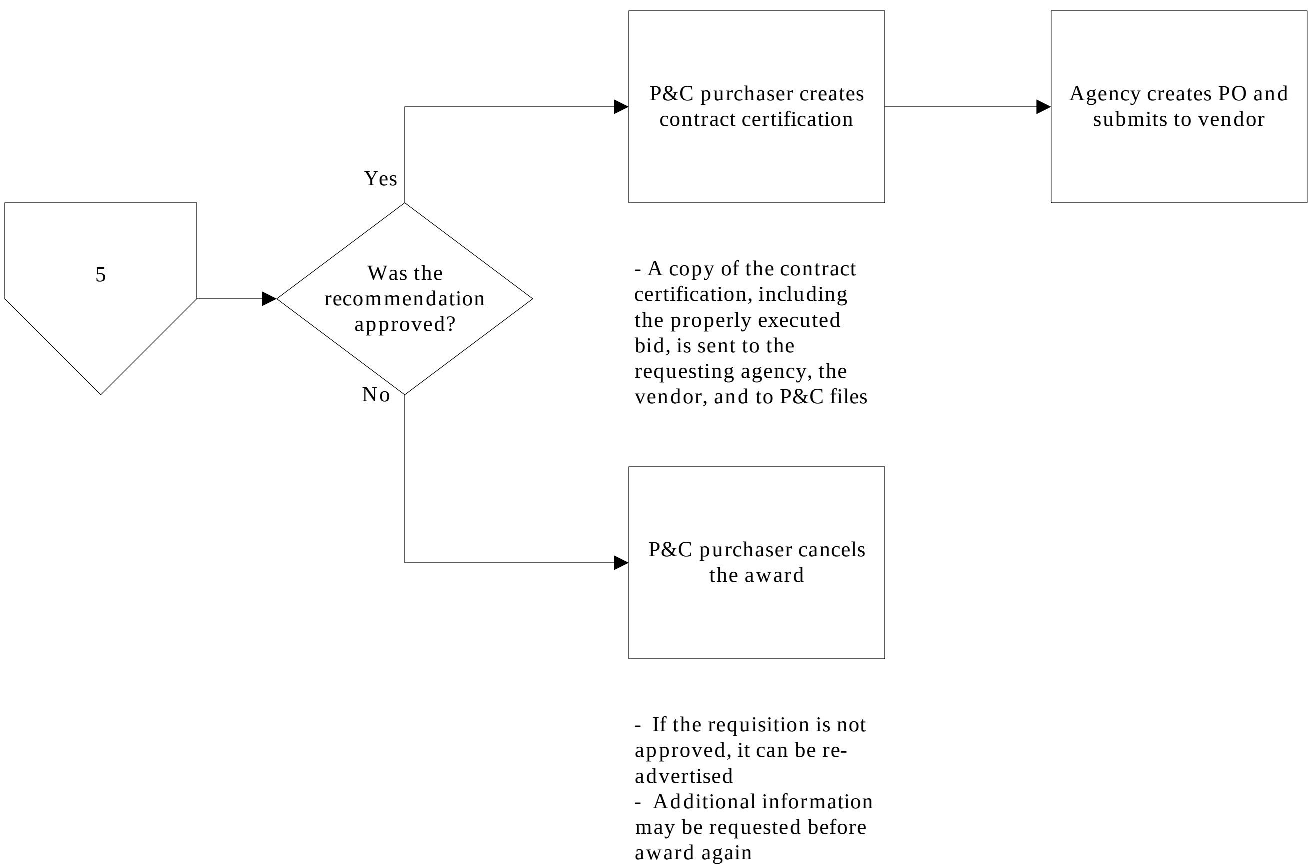


- Agency selects a vendor to recommend in IPS and indicates the justification for the recommendation
- Justification usually un-necessary if the recommendation is for the lowest priced vendor

- IPS notifies the P&C purchaser that a recommendation has been made by the agency
- Agency purchaser returns the hard copies of bid responses

-Award must be based on criteria set out in posted bid


4
P&C purchaser awards bid in IPS and creates Board Sheet
P&C purchaser submits Board Sheet to Purchasing Manager and Chief of Purchasing
Was the recommendation approved?
Yes
P&C purchaser submits Board Sheet to Board of Award for approval
5
-Attend Board of Award meeting with Board Sheet, bids, and supporting documentation
No
P&C purchaser contacts agency and the recommendation can be revised and resubmitted
3
- Board sheet is to be presented to the Board of Award
- P&C submits all awards to the Board of Award, if the amount is above the agency's delegation
- Internal approval of purchasing manager and Chief of purchasing is required before submission of award to Board of Award
- Process returns to agency recommendation and proceeds through process again


5
Was the recommendation approved?
Yes
No
P&C purchaser creates contract certification
Agency creates PO and submits to vendor
- A copy of the contract certification, including the properly executed bid, is sent to the requesting agency, the vendor, and to P&C files
P&C purchaser cancels the award
- If the requisition is not approved, it can be re-advertised
- Additional information may be requested before award again

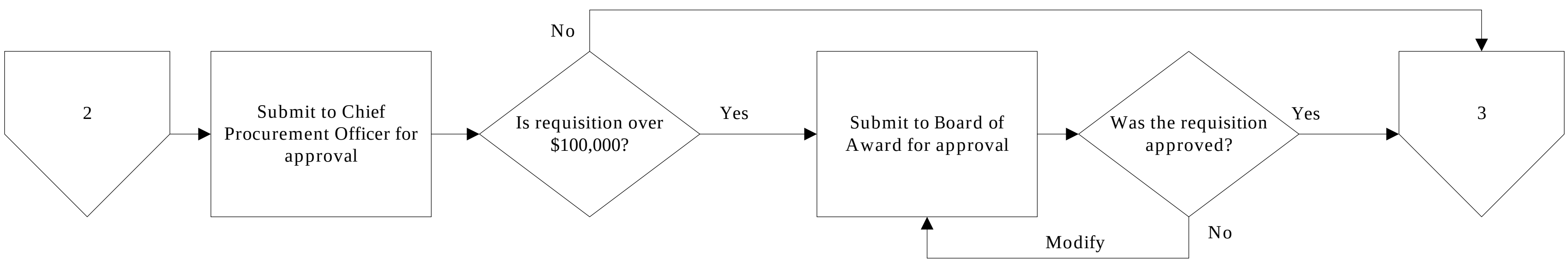
ITS Contract Specialist

Note:
- There are term contracts for IT and Non-IT goods
- ITS IT Statewide Procurement Office establishes the term contracts for IT commodities
- The Division of Purchase and Contract establishes term contracts for Non-IT commodities

Identify recurring IT need → Obtain Information Resource Management approval → Write bid and post to Interactive Purchasing System (IPS) → Receive bids from vendors → After closing date, evaluate bids and create matrix to determine recommendation of award → 2

Identify recurring IT need	Obtain Information Resource Management approval	Write bid and post to Interactive Purchasing System (IPS)	Receive bids from vendors	After closing date, evaluate bids and create matrix to determine recommendation of award
-Term Contracts are established for goods that are purchased frequently and where a contract would provide consistent low pricing or convenience to the end user	-Fax, email, or interoffice mail to IRM the bid and supporting documentation such as brand specific or sole source justification and specs -Receive approval via fax, email, or interoffice mail from IRM	-Write bid in MS Word -Convert bid to PDF format -Select a commodity category when posting to IPS -Interactive Purchasing System electronically sends notices to vendors of new bids in the category they registered -If vendors cannot download from IPS, they can request a hardcopy of the bid	-Receive vendor responses in hardcopy through mail, FedEx, or hand delivering	-Record name and price; or just name of offeror dependant upon solicitation type -Create matrix based on the method selected to determine award -Use either the Trade-off method or the Lowest Price Technically Acceptable method of source selection -Refer to policies 22 and 23 for method descriptions

ITS Contract Specialist



-Submit all documents to Chief Procurement Officer including approval notices, bids, matrices, letter of recommendation, and specs

-If under $100,000 the only remaining approval comes from the Chief Procurement Officer
-If over $100,000 then additional approval is required from the Board of Award
-If over $100,000 and originating from the ITS agency then approval of Office of Management and Budget is required prior to submitting to the Board of Award

-Present to Board of Award; Have available if requested approval notices, bids, matrices, letter of recommendation, and specs

-If the request is not approved, it must be modified to meet approval before it can proceed the appropriate action as directed by the Board

ITS Contract Specialist

-MS Word based document
-Notification sent to the vendor first by email, then by fax, and a final follow-up with a hard-copy.

Appendix D:

Focus Group Summary and Reports

SUMMARY FINDINGS
Two E-Procurement Focus Groups
Sept. 20, 2000

Strengths of the Current Process

The participants generally liked:

- The increased efficiency when using online systems
- The flexibility of the process
- Their own systems
- New features not previously available
- Express requisitions which provides frequent status checks
- Streamlining of invoice process which allows invoices to go directly to Accounting

Weaknesses of the Current Process

The participants generally disliked:

- Search engine limitations
- Delays in getting approvals
- Lack of external information distribution
- Using two sets of rules and forms
- High level of training required
- Lack of way to track contracts
- Specific nomenclature knowledge requirements
- Difficult navigation in some systems
- Using multiple systems
- Lack of availability of some catalogs

Requirements of E-Procurement System

The participants generally:

- Wanted the e-procurement system to follow business rules
- Wanted the ability to customize for each agency
- Wanted funding from the state
- Asked for one solution to replace all systems and integrate with backend systems

- Suggested that Purchasing have the final approval for procurement
- Wanted e-procurement to include a process to screen vendors
- Wanted options for the delivery of purchases
- Wanted increased flexibility for the ability to cancel orders after ordering

Overall Comments

The participants:

- Wanted to use e-procurement as an opportunity to reengineer business processes
- Said that they do not want an additional system unless it will replace current systems
- Emphasized collaboration as a way of achieving a common solution
- Saw changes in the requester and buyer roles as mostly positive

Volunteers

- Three participants (from DHHS, DOL, and Guilford county Schools) volunteered to be in the pilot

FOCUS GROUP REPORT

Morning E-Procurement Focus Group
Sept. 20, 2000

Participant Profile:

- 12 total participants
- Work at OSC, DOL, P&C, DOT, DHHS, community college system, city or county government
- 6 buyers
- 5 manager level
- 3 men, 9 women
- Approximate age range: 30 – 50

Strengths of the current process
Question: What are the strengths of the current process? What would you say about efficiency?

Type of Comment	Specific Comments
Strengths	▪ Part of the strengths of the current is there is enough flexibility in the current system to verify that the company is legitimate and they can provide the service requested; part of the concern with the internet is the unknown; you don't want to buy airplanes from just anyone ▪ But the process itself is wonderful ▪ Those that have started using express requisitioning now can check its status more frequently and can see where it is; if they say something is coming in hardcopy we can watch for it; we used to have this thing where they said 'we sent it out' and we said 'we did not get it' ▪ Now we get calls asking if this or that is on state contract; we have some searching with an online listing of the state contracts but we need a better, more robust searching tool ▪ Yeah you have to know the nomenclature to be able to find something
▪ Efficiency and time	▪ It's a lot more efficient than before; Before it was bringing written requisitions to P&C on the first of the month; then there would be the "purchasing didn't get it until fifth, etc."; now you can go online and see when it was approved, status, and all that fuss has been removed

	▪ We have a five day turnaround that we try to adhere to; we have a timeline out there on our intranet ▪ And that's a five day turn-around once it gets to her ▪ We have not experienced any real delays ▪ If it is online the turnaround works but if it is not on term contract it can take much longer ▪ There's a built in time frame for something over $10,000 since it has to be out there for 10 days on bid; we do a lot of online bids; Some things take a long time like 180-200 days to build so if we are talking requisition to receipt then it can be a very long time ▪ That's one of the reasons we are buying the new system is it will track them ▪ We have commodities we track and see how long should it have taken; sort of some benchmarks ▪ Well that's (time frame) going to vary whether it is technical or not; it depends if they can find it somewhere for the bid or not ▪ At the university where about half of our requisitions are coming in online and the others are sent hardcopy, I see a tremendous difference in efficiency since we went online. On average, we have 5 day turnaround. We phone everything in and try to minimize our faxing or emailing. Since you spend 80% of your dollars on small purchases, we were very disappointed that the P-card did not go through. That would have saved a lot of time; I don't see how you are going to do e-procurement without the p-card. If we had the p-card, I could spend more time on big purchases like construction and not on small purchases
IPS	▪ The IPS is probably the biggest step in 30 years for procurement in the state. Other states call every day and can't believe how easy it is ▪ However, when you buy a digital camera, you get 200 bids ▪ The legislature should have put in a caveat to get out of the $10000 requirement to put on the IPS. We had a bid for promotional supplies where we got 200 bids for pencil vendors; it took us more time to sort through it than the contract was worth

Weaknesses of the Existing Process
Question: What are your thoughts about things that don't work very well with the present process?

Type of Comment	Specific Comments
List of Weaknesses	▪ Inefficient key word search – sometimes leads to purchases off state contract ▪ Turn-around times are often too slow because of manual processes ▪ Multiple systems being used throughout the state – causing lack of consistency in processes, possible losses of volume discounts ▪ Many systems not user-friendly causing inefficiencies ▪ Two sets of rules (ITS & P&C) ▪ Two sets of forms ▪ Specification writing (help) ▪ Work flow process not efficient ▪ Not everyone participates ▪ Should be one entry point ▪ All catalogs should be available ▪ Search engine ▪ Excessive approvals ▪ Ability to return requisitions split funds ▪ Expenditures down to work order level
Vendor screening	▪ Part of that is knowing if companies are legitimate. What scares me about the Internet is that you don't know. It's one of the strengths, perhaps one of the dangers of going to the Internet
3 sets of rules	▪ At the community colleges, there are rules they are exempt from and some they are not. We at the DOCC office have to advise them and there are different rules we have to advise them on ▪ I'd like to second what she said; with the addition of IT we now have three sets of rules; I have vendors who don't understand why we use different sets of rues for the same products

Delays	▪ A mechanic who needs a transmission sends something in and must go through 4 approvals. When we get it, we try to expedite it but it may have taken a long time to get to us and the user does not know this ▪ In emergencies I do anything to get what we need. ▪ In emergencies, we just go and buy it. During the hurricanes, we went to disaster areas and when something was needed we just went to the store. We did not wait around ▪ The end users don't know the process and don't understand why it takes so long ▪ They don't know what I have to do to follow the rules ▪ At P&C we put out the bids and stuff, but we don't know anything about delivery - it could be 2 days or 2 months ▪ They only let you know something when they are really mad, they don't come to you along the way to help expedite things (speaking of end users) ▪ There are problems, like vendors who want a credit card number and don't want to wait for a PO

Demo and Requirements Discussion
Question: Does using e-procurement software seem to be intuitive? What do you think of the level of difficulty?

Type of Comment	Specific Comments
Questions about the software	▪ What about specifications? How can we see that and compare? ▪ I am confused about one thing - Are you the requisitioner? Who are you? ▪ Will the system integrate with the current system? ▪ Can we change our passwords? ▪ If we are out of money, we send it to someone in Budget and find the money sometimes (switch the money or override the funds not available and wait on the money to arrive) ▪ Can you go back and look at something you have entered that has been ordered? ▪ What is the expense report? ▪ On term contracts, you have the buying information. Where do you store the boiler-plate language about warranties, etc…?

	▪ What about electronic signatures? ▪ Does this eliminate the IPS? ▪ Would the system have the capability of adding our suppliers at the university? ▪ How many line items can you add?
Usability	▪ Its easy to navigate
Requirements	▪ It goes beyond just the p-card. We need a service to screen these people (vendors) and to know they are not a scam ▪ You've got to have interfaces back to the current system to track to a certain level? I want to know what project it went to. We have to report to the FEDs where the money went ▪ I should be able to compare on one screen side by side the different vendors ▪ There should be options on evaluation, like delivery time ▪ The user should be able to see so that if there is a warranty they do not buy a service agreement ▪ Yeah, that should be part of the side-by-side comparison ▪ It needs to tell you the commodity code by searching when you enter the description or select the product ▪ There are a lot of standard things available for specs now that should be online ▪ You need the ability to cancel up to the PO being sent and even sometimes after the PO being sent. You want the ability to cancel a PO and have it not come back to you and notify you that it was cancelled ▪ Often times on certain items, we want to be able to refuse or accept if there are differences at receipt ▪ For some things you need an extra step to verify an inspection before paying ▪ You need to have a place for vendor to go in and say that he sent the product ▪ If we had people doing this it could be dangerous because they don't know the accounting or there budgets and such ▪ With P-cards you can encode just about anything you want as restrictions ▪ We want to be able to requisition anything under contract and select the item and then produce the order automatically if I select it; They should be able to buy from our term contracts

	▪ The system would work best if they type in what they want and tells them if it is on term contract; if it is not, then it will handle it if its under their delegation or tell them to go to P&C if its over ▪ The roles should change to where P&C and ITS are setting up the contracts and not doing as many bids. Reengineering should be a requirement ▪ The legislature approved that. We need an electronic lockbox to restrict access to make changes, secure submissions of bids with time stamps, no access to it until the bid opening time, etc… ▪ You need to be able to do a keyword search t see if this is on contract. You need to be able to find "braided water hoses" under "hoses" ▪ P-card has to be a part of this e-procurement solution ▪ You need the ability to cancel a PO and not have it come back as a request ▪ You have to be able to geographically reduce the number of vendors. Make the decision by area or by response time

Question: Do you think that e-procurement software can address any of the weaknesses you listed? How could software improve the purchasing process?

Type of Comment	**Specific Comments**
	▪ It costs us $80 to make a PO. By allowing the freedom to buy something small, it saves that amount of money ▪ It actually gives you greater control so that you can see if they are buying on term contract or not. I still am concerned about open market bids where you're hunting around through businesses. There are some things where we require a geographic component because of servicing so you have to be able to geographically limit the bids ▪ So users could enter in if they received before we pay ▪ Looking at two sets of forms, it automatically takes you to the required steps ▪ With everybody using the same system, you improve the turn-around time ▪ All catalogs will be available

Potential Issues
Question: What would it take to put e-procurement in place?

Type of Comment	Specific Comments
Integration	▪ One thing we did not see is that there are tremendous reporting capabilities to evaluate vendors (one-time, quick receipt) ▪ DOT is in the process of replacing our core financials. To integrate with e-procurement is going to cost us an exorbitant amount of money. It is not practical for us at this point to integrate with a legacy system that is being phased out in 18 months: we don't want to have to do it twice ▪ Is this going to integrate? The back-end system could be anything ▪ Who decides how many systems are included? ▪ Community Colleges have their own system; they are developing a system currently that will include purchasing information; that new system will need to interact with the e-procurement system ▪ Do you hold a single vendor responsible for all of these interfacing ▪ Will it have the ability to integrate with any system out there? ▪ Is this going to be a central system where everybody will use the same database? ▪ If all we do is automate the current system, we're missing an opportunity ▪ Could the cataloging be statewide with the flexibility to customize for the different agency? ▪ Assuming the community colleges are included, they would want to tailor the vendor list to local options ▪ If you're asking what system I like, I like Oracle DB's. ▪ Again, the flexibilities and the statutes being looked at. Instead of just blanket statements, having some thoughts and review and input ▪
HUB	▪ Is this system going to attract minority and women owned businesses?

Resources	▪ Who bears the cost? Is the funding there? Who does the interface? All of these questions have to be addressed ▪ How are you going to be able to train everybody in the system? ▪ We have mechanics who order online (not Internet). That's a business decision
Collaboration and Resistance to Change	▪ Communicate clearly ▪ Training of the vendor community is also an issue; they have to have the capability to do this ▪ Show the benefits to vendors before you even mention a fee, because there will be serious negative feedback

Benefits

Question: What benefits does e-procurement bring?

Type of Comment	Specific Comments
System	▪ You can comparison shop from one screen. That would be wonderful
Change in Roles	▪ You could push some commodities, some dollar amounts down to the level of the user. You can always have purchasing be one of the approval steps ▪ There's no added value in having me go online and have a look at term contracts. If there's a term contract in place, this kind of system is going to tell you that ▪ Time would be better spent working on setting up contracts

FOCUS GROUP REPORT

Afternoon E-Procurement Focus Group
Sept. 20, 2000

Participant Profile:

- 13 total participants
- Work at DOT, DOL, OSC, DHHS, County or city government
- 4 are managers or directors
- More than half are buyers
- Approximate age range: 27 – 50
- 8 men, 7 women

Strengths of the current process
Question: What are the strengths of the current process?

Type of Comment	Specific Comments
Process	▪ NCAS has streamlined the invoice process – it goes directly to accounting ▪ Good integration between purchasing and inventory ▪ Process for Wake County
System	▪ Electronic requisitioning, which we did not have before ▪ Availability funds check - funds verification ▪ Online approvals ▪ Online faxing and purchase orders ▪ Online materials receipt process at DOT ▪ Robust reports

Weaknesses of the Existing Process
Question: What are your thoughts about things that don't work very well with the present process?

Type of Comment	**Specific Comments**
List of Weaknesses	▪ Mainframe system ▪ Account distribution limits ▪ Commodity search ▪ System modifications are expensive and have impact on others ▪ External information distribution ▪ Difficult to navigate ▪ Requires extensive user training ▪ Lack of integration ▪ Contracts can't be tracked ▪ Training is difficult for new employees ▪ Problems with faxing POs ▪ Problems with vendor lists
Internal vs. external system	▪ Everything is automated internally but not externally - we want to extend it outwards ▪ There's a big concern of being able to distribute information externally as well as receive information from external systems
System problems	▪ Online quote abilities are not used consistently ▪ We would like to get receipts due to problems with faxing PO's ▪ There are problems with duplication of vendor links (for instance a Loew's with two locations – you must know which one is local based on vendor number or name) ▪ It's difficult to navigate – you must enter some command lines to get to where you want to go ▪ NCAS is limited in account distribution
Delays	▪ Individuals cause delays - items can sit on someone's desk for days ▪ Some of the delay is based on state rules - bids have to be out there for 10 days ▪ P-cards should reduce delays, but we don't have permission to use them ▪ I think a P-card would be a big benefit to smaller agencies. If we could give a card to someone it cuts down on our time required for processing the order

Demo and Requirements Discussion
Question: Does using e-procurement software seem to be intuitive? What do you think of the level of difficulty?

Type of Comment	Specific Comments
Questions about the software	▪ It verifies that the splitting of funds all hit a valid fund? ▪ Will the system handle individual entities needs or is it based on state dictates? ▪ Is the system set up to have a differentiating number system by agency - instead of PR25, then PR26, then PR27? ▪ How can we be assured that this will work with all legacy financial systems? ▪ What will happen if an item is supplied by only one vendor? ▪ What if someone goes out to NCAS and creates the requisition as well as using the e-procurement system? ▪ How would you get a cross-reference back to the inventory that DOT is gathering? ▪ What security features will stop an unauthorized person from receiving quotes ▪ Can e-procurement be configured to use a different system to handle the odd items that e-procurement cannot handle? ▪ Would the system already have vendors entered or will it be necessary for the state to enter this information? ▪ Can IPS be interfaced with this software? ▪ Can you have local approval and different levels of approval? ▪ Is the requisition numbered automatically? ▪ Is this part of e-forms? ▪ How do you get vendors (or products) not on the system? ▪ Is there an internal numbering scheme? ▪ Can non-catalog items be added? ▪ It would be nice to have one point of entry.

Requirements	▪ Does the system notify the budget person if there are not sufficient funds? (Should be a requirement) ▪ Indicate whether the vendor received the PO ▪ DOT has a need of driving costs down to the detail of projects

	▪ It should let them know if someone has not approved the order in 5 days ▪ The integration is very important. Having P&C and ITS connected would be good ▪ It would have to integrate with SAP ▪ The system needs to handle business rules ▪ You can't get rid of NCAS because of vendors who are not on the web ▪ We need to be able to create a paper based system that would be able to print a PO and sent to a vendor ▪ It must be configured at the agency level ▪ Approval is needed before it is even put out to quote; we need that functionality ▪ I don’t want to see other people’s requisitions ▪ It’s very important to be able to page back in the system

Question: Do you think that e-procurement software can address any of the weaknesses you listed? How could software improve the purchasing process?

Type of Comment	Specific Comments
	▪ Different levels of purchasing with this system
	▪ I (buyer) could be the final approver ▪ Would this get rid of NCAS?

Potential Issues
Question: What would it take to put e-procurement in place?

Type of Comment	Specific Comments
Integration	▪ Integration with the existing system. There is a huge amount of info that has to be converted to attract vendors ▪ Will this be a replacement of NCAS purchasing or merely supplemental? If we still have to use the old system as well, it would be a huge disadvantage - you have to maintain expertise in more than one system ▪ Someone is going to have to own the data and make sure it is updated (managing the system) ▪ It would have to be completely integrated with the reporting capability that needs to be given to state and FED
Reengineering	▪ A thorough review of the statutes and requirements must be done because this will drastically impact them ▪ The State needs a process to screen vendors ▪ All of NCAS needs to be updated and as we look at e-procurement we need to look at the whole thing and not just the purchasing portion ▪ Are they considering having IPS set up to receive quotes from the vendors online? ▪ Would it make more sense to have a vendor's term contract last for several years to make it more worthwhile to get the catalog online?
Resources	▪ Is this going to require more resources from me to configure this thing? ▪ How would integration be funded? ▪ Who's going to pay for this?
Collaboration and Resistance to Change	▪ Configuring to the agency's needs - they don't want to change the way they have been doing it for years ▪ There are so many systems and some people don't want to move over to the new program ▪ Make sure you include all of the departments that will be using the system in the decision making process so it is accepted ▪ There are a lot of states that use e-procurement - are you modeling after some other state? ▪ You need to make sure not to oversell it as the solution to all

	of our problems ▪ I agree to an extent; I think, though, that it can be made to be everything to everybody

Benefits

Question: What benefits does e-procurement bring?

Type of Comment	**Specific Comments**
Software	▪ I want to do everything electronically with the vendors but we at least want to be able to get it out to these guys (vendors who are not on the web) and pick and choose the method (emailing, mass mailing); and get everything tied back to that one bid ▪ I would also like to see a commonality of some of the systems, like here in Raleigh there are a lot of entities
Change in Roles	▪ I like the idea of giving the requisitioner the access to go out and get their own quotes ▪ The role of the purchasing becomes less on the transactional side and more on the negotiating deals and creating contracts side ▪ The implementation of NCAS has broadened the scope of the purchaser/buyer role ▪ It's the old 20/80 rule: 20% of the purchases are taking 80% of your time. This could free you up to develop vendor partnerships, negotiate, get best value-added deals

Appendix E:

Ariba / Epylon Response to Functional Requirements

Vendor Record Requirements

Vendor functionality requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
1-F.1	Vendors database is shared by all agencies and other using entities	√		
1-F.3	Can search for vendors online by HUB category, commodities also SIC codes, location, key word, contact, county, city – with drill down/refining capabilities	√		
1-F.4	Allow vendor to self-register and update online (secured access)	√		
1-F.5	Allow vendors to be automatically reviewed, activated, and inactivated centrally	√		
1-F.6	Vendors can have multiple addresses and profiles, but single entity identification	√		
1-F.7	Vendor performance measurement tools (price, quality, delivery, etc)	√		
1-F.8	Ability to view vendor status online (last registration date, debarred date, etc.)	√		

Vendor Record Requirements

Vendor data requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
1-D.1	Vendor name	√		
1-D.2	Order-from and remit-to addresses, etc.	√		
1-D.3	Fax number by location	√		
1-D.4	Phone number by location	√		
1-D.5	E-mail address by location	√		
1-D.6	Contact name by location	√		
1-D.7	Standard payment terms	√		Payment information is not typically maintained within Ariba, however the solution can be extended during the implementation to meet this requirement
1-D.8	Vendor order-from county	√		See 1-D.7
1-D.9	Vendor remit-to county	√		See 1-D.7
1-D.10	HUB categories	√		
1-D.11	Government category (state/local/federal/university/SAU)	√		
1-D.12	Last update date	√		
1-D.13	1099 eligibility (individual/partnership/sole proprietorship/medical provider)	√		See 1-D.7

Vendor Record Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
1-D.14	1099 name (if different from payee name)	√		See 1-D.7
1-D.15	Federal ID/Social security number	√		
1-D.16	Bank account number/type/routing code (secured from view & reporting)	√		See 1-D.7
1-D.17	Commodity association (NIGP/UNSPSC) by location	√		
1-D.18	URL (Web address)	√		
1-D.19	Number of employees (cross reference to business type)	√		
1-D.20	Annual sales (cross reference to business type)	√		
1-D.21	SIC code(s)	√		
1-D.22	Business type (retail, wholesale, manufacturing, services)	√		
1-D.23	Bondable or Bonding History	√		See 1-D.7
1-D.24	Withholding information	√		See 1-D.7

Vendor Record Requirements

Vendor reporting requirements (ad hoc and prepared):

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
1-R.1	Vendor listing by category (HUB, government, etc.)	√		New reports can be created to support this specific requirement during implementation
1-R.2	Vendor listing by commodity	√		New reports can be created to support this specific requirement during implementation
1-R.3	Commodity listing by vendor	√		New reports can be created to support this specific requirement during implementation
1-R.4	Small business listing	√		New reports can be created to support this specific requirement during implementation
1-R.5	Vendor history summary (number of transactions and total dollars)	√		
1-R.6	HUB reporting	√		New reports can be created to support this specific requirement during implementation
1-R.7	Ad hoc vendor reporting	√		
1-R.8	Vendor performance tracking	√		

Item Catalog Record Requirements

Item/Catalog functionality requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
2-F.1	Catalogs should be managed by the software vendor or by a third party	√		
2-F.2	Catalogs should be able to include pictures and detailed specifications	√		
2-F.3	Vendors should be able to get catalog formation help from vendor/manager	√		
2-F.4	Catalog updating is easy for vendors	√		
2-F.5	Vendors cannot raise catalog prices for term contract items without State contract manager approval	√		
2-F.6	Effective cross-vendor search by commodity or alpha provided by catalog manager (compare prices for like items across vendors)	√		
2-F.7	Access to catalogs controlled by item /commodity /vendor /agency / requester /term contract/ or other business rule	√		
2-F.8	Item identification with commodity code(s) (NIGP/UNSPSC)	√		
2-F.9	Complex alpha search capability – by manufacturer, etc	√		
2-F.10	Ability to make an item active/inactive centrally	√		
2-F.11	On line, real time catalog update and maintenance capabilities	√		

Item Catalog Record Requirements

Item/Catalog data requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	**NO**	**If no, please explain. Give date if you anticipate compliance in the future.**
2-D.1	Items associated with standard units of measure (stock keeping unit, issuing, purchasing, and paying units may be required)	√		
2-D.2 (work flow)	Items associated with specified agency buyer based on commodity type for workflow rules	√		
2-D.3	Items associated with commodity code (NIGP/UNSPSC), as well as vendor’s stock number	√		
2-D.4	Items associated with multiple alpha search codes	√		
2-D.5	Term, agency-specific, and convenience contract indicators	√		Extrinsic***** *****An ***extrinsic*** is a data element added to the solution's off-the-shelf object model. This is a simple configuration task performed often in every Ariba implementation. Like other configuration tasks, it does not impact the base code or upgrades.
2-D.6	Recycled content indicator	√		Extrinsic
2-D.7	Goods versus services indicator	√		Extrinsic
2-D.8	Accounting key default	√		
2-D.9	Items associated with manufacturer’s item number	√		

Item Catalog Record Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
2-D.10	Ability to create kit (bundle) item numbers that include multiple individual items	√		The solution can be configured to support this specific requirement during implementation
2-D.11	Ability to apply commodity code/categories to non-catalog transactions	√		
2-D.12	Standard payment terms	√		Extrinsic
2-D.13	FOB/Freight terms	√		Extrinsic
2-D.14	Product qualification	√		Extrinsic

Item reporting requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
2-R.1	Term contract item listing by commodity group and term contract number	√		New reports can be created to support this specific requirement during implementation
2-R.2	Listing of catalog goods versus services	√		New reports can be created to support this specific requirement during implementation
2-R.3	Recycled goods listing by commodity group	√		New reports can be created to support this specific requirement during implementation

2-R.4	Listing of items/commodities assigned to agency buyers	√		New reports can be created to support this specific requirement during implementation
2-R.5	Listing of HUB vendors by item/commodities they supply	√		New reports can be created to support this specific requirement during implementation
2-R.6	Summary by item/commodity of number of transactions and dollars	√		
2-R.7	Ad hoc reporting	√		

Requisitioner requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	**NO**	**If no, please explain. Give date if you anticipate compliance in the future.**
3-R.1	Requesters must be linked to agency/division	√		
3-R.2 (work flow)	Ability to create complex, commodity specific, requester-dependent approval routings unique by agency	√		
3-R.3	Requester record includes name, address, phone, fax, e-mail, agency url, default approval routing, default ship-to location, default key accounting elements, procurement card information, etc.	√		
3-R.4	Ability to restrict requester activity to dollar limit, specific commodities, account keys, or other elements of the user profile	√		
3-R.5	Ability to activate/inactivate requesters centrally within the agency	√		

Requisitioner, Approver and Buyer Requirements

Approver requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
3-A.1	Approvers must be linked to agency/division	√		
3-A.2	Approver record includes name, address, phone, fax, e-mail, agency url and other contact information	√		
3-A.3	Choice of routing approvals sequentially or concurrently	√		
3-A.4	Ability to delegate approval authority for absent approvers	√		
3-A.5	Workflow notification	√		
3-A.6	Ability to activate/inactivate approvers centrally	√		

Buyer requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
3-B.1	Buyers must be linked to agency/division	√		
3-B.2	Ability to link buyers and commodities, so requisitions can be routed accordingly	√		
3-B.3	Buyer record includes name, address, phone, fax, e-mail,	√		

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
	agency url, default approval routing, etc.			
3-B.4	Ability to restrict buyer activity to dollar limit, specific commodities, or other business rules	√		
3-B.5	Ability to activate/inactivate buyers centrally	√		

Shipping, Tax and Agency Requirements

Shipping, freight and terms requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	**NO**	**If no, please explain. Give date if you anticipate compliance in the future.**
3-S.1	Unlimited ship-to locations	√		
3-S.2	Ship-via records	√		Extrinsic
3-S.3	f.o.b. records	√		
3-S.4	Payment terms file must be usable in AP as well as purchasing	√		The solution can be configured to support this specific requirement during implementation

Tax requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	**NO**	**If no, please explain. Give date if you anticipate compliance in the future.**
3-T.1	Tax rate file must allow automatic calculation of tax amounts based on applied rate	√		The solution's tax computation capability relies on a backend tax processing product from Taxware. The APIs used in this integration are pre-configured for Taxware, but can also be used in conjunction with other tax products should the State desire.

3-T.2	Tax file must contain the breakdown between state versus local portions of taxes for required reporting	√		Please note comments in 3-T.1

Agency requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	**NO**	**If no, please explain. Give date if you anticipate compliance in the future.**
3-G.1	Agency record includes name, federal ID number, address, phone, fax, e-mail, agency url, etc.	√		
3-G.2	1099 transmitter control number	√		Extrinsic
3-G.3	Procurement card (ghost card) information	√		
3-G.4	Requisition and purchase order default number range	√		
3-G.5	Tax exemption	√		

Requisitioning Approval Requirements

Requisition functionality requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
4-F.1	Requisition numbers should be able to be assigned automatically by the system.	√		
4-F.2	Catalog transactions must have the ability via workflow to bypass the buyer if applicable. Either the requisition itself, once approval and funds checking are complete, must be sent directly to the vendor electronically, or a purchase order must be created automatically and electronically sent to the vendor without intervention by the buyer.	√		
4-F.3	System should be able to handle requisitions for both catalog items and non-catalog goods and services on the same requisition, and must be able to route them differently.	√		
4-F.4	System must be able to distinguish an inventory replenishment transaction, so that legacy system inventory records can be updated.	√		
4-F.5	System requisitions must integrate with system purchase orders, with all appropriate information carried forward and converted.	√		
4-F.6	System must be capable of processing each line of a requisition independently. Therefore, each line must have its own ship-to address, accounting distribution, required date, warehouse indicator, approval routing, project code, etc.	√		

Requisitioning Approval Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
4-F.7	Must integrate or interface with funds checking and encumbrance accounting requirements, including validation of accounting distributions including at a minimum NCAS.	√		
4-F.8	In addition to item description, the requester must be able to attach pictures, drawings and complete specifications to the requisition line (in the lowest technology available), which in turn can be passed to a buyer or converted to a solicitation document.	√		
4-F.9	System must allow a single requisition line to be split to multiple accounting distributions.	√		
4-F.10	For catalog items, requesters should get immediate feedback if the vendor cannot supply the entire quantity ordered, allowing the requester to cancel part of the order and place it with another supplier.	√		
4-F.11	Ability to designate a blanket purchase order against which the requisition line will be released.	√		The solution can be configured to support this specific requirement during implementation by creating a new table, custom eForm, and change for maintaining blanket purchase order balance to the SubmitHook API. This functionality has been added for several Ariba clients and is targeted to be incorporated into the baseline product functionality by end-of-year 2001.

Requisitioning Approval Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
4-F.12	Must have online view of status, such as approval, backorder, etc.	√		
4-F.13	Must be able to see a history of approvals, line changes, etc.	√		

Requisitioning Approval Requirements

Requisition data requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	**NO**	**If no, please explain. Give date if you anticipate compliance in the future.**
4-D.1	Requester identification	√		
4-D.2	Unique Requisition Number	√		
4-D.3	Unique Requisition Line Number	√		
4-D.4	Item identification number	√		
4-D.5	Item description	√		
4-D.6	Commodity code	√		
4-D.7	Vendor's/manufacturer's item identification number	√		
4-D.8	Attachment (drawing, picture, etc.) file name	√		
4-D.9	Destination blanket order number	√		Please see comment for 4-F.11
4-D.10	Quantity (allowing at least two decimal places) **(This will cause interface problems with NCAS quantities, which allow no decimals)**	√		
4-D.11	Units of measure (UOM) – allow for alternate units of measure or conversion	√		

Requisitioning Approval Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
4-D.12	Price per UOM	√		
4-D.13	Tax and freight, if applicable	√		Ariba 7.0 does not currently calculate shipping costs, but can be altered to do so.
4-D.14	Accounting distribution	√		
4-D.15	Project indicator	√		
4-D.16	Work order number	√		
4-D.17	Ship-to address indicator	√		
4-D.18	Required date	√		
4-D.19	Warehouse identifier (for legacy system warehouse transactions)	√		Extrinsic
4-D.20	Term contract number for catalog items	√		Extrinsic
4-D.21	Vendor identification	√		
4-D.22	Future posting indicator (for items to be purchased with next year's funds)	√		Extrinsic
4-D.23	ID of buyer to whom non-catalog requisition is directed	√		

Requisitioning Approval Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
4-D.24	Requisition entry date	√		
4-D.25	Requisition final approval date	√		

Requisition reporting requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
4-R.1	Open requisitions aging report	√		
4-R.2	Unapproved requisitions report by approver ID	√		
4-R.3	Open requisitions (NCAS commitments) by accounting distribution	√		Existing reports can be configured to support this specific requirement during implementation
4-R.4	Backordered requisitions line items by requester and commodity	√		Existing reports can be configured to support this specific requirement during implementation
4-R.5	Open and historic requisitions by project and work order code	√		Existing reports can be configured to support this specific requirement during implementation

Requisitioning Approval Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
4-R.6	Ad hoc reporting	√		

Requisition approval functionality requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
5-F.1	Must support workflow notification by e-mail for approvals for both catalog and non-catalog requisitions. This includes notifying the approver of pending requisitions, as well as notifying the requester when approval has been completed.	√		
5-F.2	Business rules must support workflow approval routing based on any combination of agency/requester, item/commodity, accounting distribution, project/work order, etc.	√		
5-F.3	Approvers must have the ability to reject, as well as approve, individual requisition lines, and must be able to impart explanatory comments to the requester.	√		Any approver can make explanatory comments upon approving or rejecting a request. However, as delivered, the approvals themselves are applied at the header level, not by line. (Please note that the solution indicates to the approver which line(s) they are being asked to approve.) It is possible to alter the solution to perform line-level approval as has been done with Ariba

Requisitioning Approval Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
				clients, but we do not recommend this.
5-F.4	System must allow for alternative approver in the absence of standard approver.	√		
5-F.5	Must have on-line approval status inquiry	√		
5-F.6	Must be able to see approval history for requisitions (time/date/approver)	√		
5-F.7	If a requisition is changed, it should go through the approval process again	√		

Requisition approval data requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
5-D.1	Approved / Denied indicator	√		
5-D.2	Dates for each approver action	√		
5-D.3	Approver ID's	√		
5-D.4	Approval comments	√		

Requisitioning Approval Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
5-D.5	Approver actions history (line changes, additions, deletions, accounting distribution changes, etc.)	√		

Requisitioning Approval Requirements

Requisition approval reporting requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
5-R.1	Aged unapproved requisitions by approver ID	√		
5-R.2	Days to approve by approver ID (cycle time)	√		New reports can be created to support this specific requirement during implementation
5-R.3	Ad hoc	√		

Funds checking and encumbrance functionality requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
6-F.1	Funds must be checked (ideally real-time) before transactions can be released to vendors. If possible, funds will be checked against legacy systems' available funds file, which requires encumbrances and unencumbrances to be posted as transactions progress. Otherwise, the eProcurement system must carry and recalculate (real-time) balances for all distributions. Even so, encumbrances must be recorded in the legacy system for accounting purposes.	√		All funds check and encumbrance functionality will be custom configured using the standard Ariba APIs based on requirements during the implementation.

Funds Checking and Encumbrance Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
6-F.2	For fixed price (catalog) transactions, funds checking need only occur once, before the requisition/purchase order is sent electronically to the vendor. For all other transactions, funds checking must occur at each level of commitment where a cost change might occur (requisition, purchase order and invoice entry).	√		
6-F.3	Requester must know immediately if transaction fails funds checking and by how much	√		
6-F.4	Workflow must notify a designated agency budget officer of funds checking failure, and must provide a means of overriding stoppage of the transaction.	√		
6-F.5	Encumbrances created in the legacy system, either via purchase order, invoice or journal entry, must be relieved as the transaction progresses from order through payment. This must be able to done partially.	√		

Funds Checking and Encumbrance Requirements

Funds checking and encumbrance data requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
6-D.1	Elements required by legacy system file layouts for purchase orders, invoices, payments, and/or journal entries.	√		
6-D.2	Funds exception indicator of some kind on the transaction	√		

Funds checking and encumbrance reporting requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
6-R.1	Funds exception reports by agency, division, account, etc.	√		
6-R.2	Funds exception override report.	√		
6-R.3	Ad hoc	√		

Funds Checking and Encumbrance Requirements

Current NCAS funds checking and encumbrance posting processes:

When a **requisition** is created, available funds are checked and updated real-time with a commitment (pre-encumbrance), but nothing is posted to the general ledger.	Real-time	No
When a requisition is converted to a **purchase order**, the commitment (pre-encumbrance) in the available funds table is reversed, and an encumbrance based on the purchase order line value is inserted real-time. Funds are checked, and the encumbrance is posted to the general ledger at night in a batch job.	Real-time	Encumbrance
When an **invoice** is entered and matched against a purchase order, the encumbrance on the available funds table is reversed and replaced with another encumbrance in the amount of the invoice line (cash basis accounting). Funds are checked real-time. The invoice encumbrance is posted to the general ledger, and the original purchase order encumbrance is reversed, in the nightly batch posting job.	Real-time	Encumbrance
When payment is made, the expense is posted to the general ledger, and the encumbrance is reversed, in the nightly batch posting job.	No	Expense

The only other way encumbrance and expense entries occur is through journal entries. Such entries are posted during the nightly batch job and reflected in the available funds table the following morning.

Implications for eProcurement:

1. **When a requisition is created in the eProcurement System:**

    - **We could skip funds checking**: Assuming a catalog requisition becomes a purchase order before it is sent electronically to the vendor, and assuming workflow creates a fast approval environment, we may be able to skip the pre-encumbrance funds checking functionality. However, if approvals take several days for completion, then the available funds table will not reflect that commitment when funds are checked for purchase order and invoice transactions. Also, non-catalog requisitions are likely to take longer to approve, and therefore may require funds checking.

- **We could create a requisition NCAS**: We would check for funds real-time, but also would create a parallel requisition in the NCAS. This would commit the funds against the available funds table during nightly batch processing, which means the commitment would be included in the next day's available funds table. If we do this, we will have a requisition document in both systems. In addition, when the requisition or subsequent purchase order is sent electronically to the vendor, the requisition in the NCAS must be converted to a purchase order or closed; or else the commitment in the available funds file will remain indefinitely.
- **We could directly enter a commitment into the available funds table**: If we enter a direct commitment against the table, without reference to a requisition, then the available funds table will reflect that commitment the next day. However, when the requisition is fully or partially fulfilled, we will have to send an adjusting direct entry to the table, or else the available funds total will be wrong.

2. When a requisition becomes a purchase order in the eProcurement System:

- **We could create purchase orders only in the eProcurement System**: If we do not create purchase orders in NCAS, we still must check for funds availability, then we must pass a journal entry during nightly batch processing to update encumbrances. If we post encumbrances this way, then we will have to use journal entries to reverse these encumbrances when full or partial matching invoices are entered. Even if invoicing is done entirely in the NCAS, there will be no purchase order to match, so a reversing journal entry still will be required.
- **Create a purchase order in NCAS in batch**: If we use the eProcurement purchase orders to create NCAS purchase orders via nightly batch processing, then funds checking will occur and encumbrance entries will be made automatically. However, the funds checking that occurs during batch processing will cause a day's delay, unless we still check funds real-time via the eProcurement System. This option also would result in purchase orders being created in both systems, and would require the buyer to operate in both systems. In addition, we would have to synch various data elements, including commodities, vendors, buyers, requesters, and units of measure. Also, purchase orders in the NCAS cannot utilize a quantity with a decimal point, as we have requested in our eProcurement System requirements.

3. When an invoice is entered and matched to a PO in the eProcurement System:

- **Do all invoicing, including matching, only in the eProcurement System**: When an invoice is entered as a match against a purchase order, the system must check funds, reverse all or part of the PO encumbrance, and post an AP (accounts payable) encumbrance. If purchasing and invoicing are done only in the eProcurement System, these entries to the general ledger will have to be accomplished via journal entries. The audit trail for journal entry encumbrance processing is not nearly as robust as with normal transaction processing, making reporting more difficult. This means all 1099 report, tax reporting by county, etc. must be done from the eProcurement System.
- **Create invoices in the NCAS in batch**: When matching invoices are entered in batch, funds checking occurs, and encumbrance reversals and postings are made automatically. In order to make these payments, of course, all required receiving must be in place in the

NCAS. Also, since the creation of these invoices occurs during nightly processing, matching exceptions will not be known until the next morning. This option requires both buyers and accounts payable clerks to operate in both systems. This option also requires that data from both systems be synched.

- **Enter invoices only in the NCAS**: If invoices are entered only in the NCAS, and matched against NCAS received purchase orders, all funds checking and encumbrance entries will be made automatically, and all standard reporting works as is. Buyers still will have to use both systems, but accounts payable clerks will be able to operate in the NCAS alone. Since accounting is not being done in the eProcurement System, leaving purchase orders in an unpaid status has no adverse impact.

4. When an invoice is paid in the eProcurement System:

- Since payment results in a reversal of the AP encumbrance and posting of expenses, those entries would have to be made via journal entries during nightly batch processing. If we are actually going to make payments via the eProcurement System, then we will have to integrate it with Cash Management (CMCS) and BottomLine Technologies' Paybase 32 system. In addition, we must require that the eProcurement System be capable of ERS (evaluated receipt settlement). Finally, all 1099 and other reporting would have to be done from the new system.

5. Use the procurement card with the eProcurement System:

- If agencies use a default "ghost" procurement card, all catalog purchases would be done solely via the eProcurement System. Just as with current procurement card transactions, there would be no funds checking and no encumbrance of funds prior to order fulfillment. Transactions would be downloaded from the bank into the NCAS daily and reconciled by agencies. The system will use these downloaded transactions to create a monthly invoice, at which time funds are finally checked and an AP encumbrance made. From that point on, the transaction is handled like any other direct invoice. The eProcurement System would provide far more purchasing detail than currently provided by the card providers.

Note: With the aid of middleware, it may be possible to read and pass data between the eProcurement System and the various legacy systems (such as NCAS) real-time. That would eliminate the delay caused by passing batch files during nightly processing.

Solicitation Requirements

Solicitation functionality requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
7-F.1	One time data entry (no duplicate entering). Use data from agency, buyer, and commodity, etc. files, in addition to data entered directly in solicitation tables.	√		If a comma delimited file outputs from legacy systems are provided conversion processes can be created which will eliminate the need for manual data entry.
7-F.2	System shall be able to convert an electronic requisition as an IFB, RFP, RFQ, a waiver, or other solicitation document that can be posted and processed by the originating agency or forwarded to central purchasing (P&C or ITS) for posting. Forwarding should be accomplished automatically via work rules involving agency identity and value of procurement transaction.	√		Our current system meets your requirements for RFQ's (those requests which are under the bid limit.). Our Q2 2001 release will include "eBid", which allows online creation and submission of IFBs, and RFPs,that are over the bid limit, and comply with "sealed" requirements.
7-F.3	Track the status of the requisition and maintain an e-mail communication log (purchaser/ requisitioner) throughout the entire process. Late response notification to be monitored. Ability to cross-reference information on service contracts procured by agencies, especially to reflect accurate status during procurement process, is desirable. (manual update by central purchasing acceptable).	√		
7-F.4	System to automatically assign a solicitation Control Number and route to the correct purchasing group based on commodity type or other criteria. System to accommodate and track multiple review / oversight levels. (Examples: purchasing entity review of specifications, CS-I for consultant services).	√		

Solicitation Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
7-F.5	System to provide various templates to create solicitation document, and formatted standard paragraph selections. When applicable, include listing of non-state agencies covered by solicitation (term contracts). Scanned documents in various formats as well as standard formatted computer files (e.g., JPEG, GIF, Excel, etc.) must be able to be incorporated or inserted.	√		We currently do not provide this in our eQuote module, but the specifications for our eBid module (Q2, 2001 release) currently include this requirement
7-F.6	System should be able to calculate critical dates. For example, when vendors are given 90 days to respond to a solicitation, the system should calculate the response due date, with consideration given to weekends and holidays.	√		Our eQuote system accommodates this, and our eBid system will accommodate this when released in Q2 2001
7-F.7	Post solicitations on the internet, listing any unique requirements (Mandatory site visit, for example). Notify (e-mail) potential bidders based on vendors registered for specified commodities. Vendors must be able to download or interactively complete the solicitation online.	√		Our eQuote system has e-mail vendor notification and on-line interactive completion of submission. Our eBid (Q2 2001) system will also incorporate this functionality as well as openly post to allow access to all vendors who wish to download a copy of the bid.
7-F.8	System to provide a public inquiry site where posted solicitations may be displayed based on various search criteria (by buyer, by commodity, by agency, by solicitation control number, etc.) with various outputs.	√		This will be delivered in our "eBid" functionality released in Q2 2001
7-F.9	Prepare and post addenda at any time during process. These could be changes to online data fields or attached files.	√		See 7-F.8

Solicitation Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
7-F.10	Receive solicitation document electronically (collect in a secure "lock box" file set to close at a specific date and time) (non-mandatory).	√		See 7-F.8
7-F.11	System shall be able to validate an electronic signature.	√		See 7-F.8
7-F.12	Initially, provision must be made to enable Small Business and HUB Vendors to submit bids in hardcopy format. Provision must be made for tracking bulky hardcopy documentation, manuals, product literature, etc., required with the offer. System shall allow scanned documents to be stored as attachments.	√		See 7-F.6
7-F.13	If response is an IFB, RFQ, or one step RFP automatically tabulate the items (capability of various sort criteria, e.g., pricing, performance, item, name). Award selection shall be at the item level, sub-item level and to multiple Vendors. Send hardcopy and recommendation to the requisitioner	√		See 7-F.6
7-F.14	If response is a two-step RFP, route to requisitioner/purchaser for technical evaluation / review /selection, then process the pricing performing the same functions as the IFB.	√		See 7-F.6
7-F.15	If response is a quotation due to a Waiver, create Board Sheet (or alternate approval form).	√		extrinsic
7-F.16	When recommendation for award is received from the agency purchasing entity and approved by P&C or ITS on-line, the Board Sheet or alternate approval form (template) is automatically created	√		extrinsic
7-F.17	When the appropriate authority (ies) approves award, automatically create Award Certification and transmit to	√		See 7-F.6

Number	Business Requirement	Can you comply with this requirement?		
		YES	**NO**	**If no, please explain. Give date if you anticipate compliance in the future.**
	Vendor(s) and purchasing entity electronically for processing via purchase order or similar means.			
7-F.18	After award is completed, system shall have capability to cancel award, update, and/or re-award to different vendor (default of contract) provisions must be made to supplement any information after initial award and to track all changes.	√		See 7-F.6
7-F.19	Ability to track and notify agency regarding contract ending dates, renewal options, etc. (Advance notice to buyer and agency)	√		See 7-F.6
7-F.20	Automatic tracking/notification of the buyer and the agency of required inspection	√		extrinsic
7-F.21	Ability to request inspection—purchaser or other source	√		extrinsic
7-F.22	Must allow recording of less formal vendor quotations (faxed, e-mailed or taken by the buyer/requester over the phone), tying competitive quotations together with an automatically assigned solicitation number.	√		extrinsic
7-F.23	Informal vendor quotations must be integrated with the purchasing function, so that the solicitation number can be referenced on one or more purchase orders, and quotation data (price, freight, quantity discounts, etc.) should be defaulted onto the purchase order when that number for that vendor is referenced.	√		
7-F.24	Informal vendor quotations must be identifiable either as one-time quotations, or as prices that are valid for a specified time period. The system should not allow invalid/expired quotations	√		

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
	to be referenced on purchase orders.			
7-F.25	In addition to collecting documentation of informal vendor quotation data, the system must provide an on-line method of comparative quote analysis by informal quotation solicitation number.	√		

Solicitation Requirements

Glossary of Terms:

RFP	Request for proposal
RFQ	Request for quotation
IFB	Invitation for bid
Waiver	No competition/posting required (sole source quote)
Control No.	A number identifying a specific solicitation
Board Sheet	Recommendation form to Board of Award
RFI	Request for Information

Solicitation data requirements:

The data listing for solicitations in the IPS system is very complex and is currently being housed in 30 plus tables in a relational database. These tables are available for review if needed. In addition, there may be partial duplication of field data requirements in the previous sections of this document.

Number	**Business Requirement**	**Can you comply with this requirement?**		
		YES	**NO**	**If no, please explain. Give date if you anticipate compliance in the future.**
7-D.1	Solicitation document and addenda(um) text file(s).	√		
7-D.2	Solicitation posting data	√		
7-D.3	E-mail (purchaser / requisitioner) communication file(s) (communication log)	√		
7-D.4	NSA (non-state agency) Lists	√		extrinsic
7-D.5	Vendor information data (from vendor table)	√		
7-D.6	Commodity class data (equivalent to NIGP 5-digit level) (from commodity table)	√		

Solicitation Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
7-D.7	Requisitioning Entity data (from agency, buyer and requisitioner tables)	√		
7-D.8	Requisitioner, Purchaser data at purchasing entity and P&C and ITS (buyer table)	√		
7-D.9	Requisition data (audit log for tracking)	√		
7-D.10	Solicitation data (vendor responses) for the various types of solicitation (IFB, RFQ, RFP, Waiver, or other solicitation documents)	√		
7-D.11	Bid history data (opening date, bid No, award date, holidays, etc)	√		
7-D.12	Solicitation data: items, price, delivery, shipping info, electronic signature validation data, etc.	√		
7-D.13	Bid tab data (specific item or sub-item data automatically calculated at this time)	√		
7-D.14	Award data (specific item or sub-item and multiple awards data)	√		
7-D.15	Contract start dates, contract end dates, renewal options and dates	√		
7-D.16	Advance notification time period (for exercising options or for expiration dates)	√		
7-D.17	Ability to flag inspection on item file.	√		extrinsic

Solicitation Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
7-D.18	Informal solicitation: Solicitation number	√		
7-D.19	Informal solicitation: Informal bid type (phone, fax, web, etc.)	√		extrinsic
7-D.20	Informal solicitation: Name of quotation provider and contact data (phone / fax / e-mail)	√		
7-D.21	Informal solicitation: Date solicitation received	√		
7-D.22	Informal solicitation: Quote status (accepted, rejected, incomplete, requested & declined, etc.)	√		
7-D.23	Informal solicitation: Vendor ID	√		
7-D.24	Informal solicitation: Item description	√		
7-D.25	Informal solicitation: Commodity code	√		
7-D.26	Informal solicitation: Vendor's item number	√		
7-D.27	Informal solicitation: Item quotation effective date and expiration date, if applicable	√		
7-D.28	Informal solicitation: Price	√		
7-D.29	Informal solicitation: Payment terms / discounts	√		
7-D.30	Informal solicitation: F.O.B. and freight information	√		

Solicitation Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
7-D.31	Informal solicitation: Quantity discounts (dollars and/or percent)	√		
7-D.32	Informal solicitation: Notes	√		

Solicitation reporting requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
7-R.1	Tracking status reports: Requisitioning Entity, Time line, Quantity, Solicitation Type, Performance evaluation, etc	√		An extensive “external” web based reporting architecture for solicitation data will is being released end of Q1 2001, in the interim a report can be run by Customer Service to meet this requirement
7-R.2	Solicitation Type, Requisitioning Entity, Requisitioner, Purchaser, Engineer (where applicable), process by P&C or ITS	√		Refer to 7-R.1
7-R.3	Email correspondence (text file) between central and purchasing entity (either a log or actual correspondence detail)	√		Refer to 7-R.1
7-R.4	Offerer, completed solicitation document.	√		Refer to 7-R.1
7-R.5	Tabulation	√		Refer to 7-R.1
7-R.6	Award data, by Commodity, Vendor, State, County, HUB, Small	√		Refer to 7-R.1

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
	Business, etc			
7-R.7	Board Sheets / alternate service approval forms	√		Refer to 7-R.1
7-R.8	Award Certification (various formats)	√		Refer to 7-R.1
7-R.9	Purchasing Entities e-mail, names addresses, contacts, etc. for single entry and electronic communications by individuals, bypurchasing groups, statewide.	√		Refer to 7-R.1
7-R.10	Requisitions received by person, by Agency, by commodity, by IT versus P&C, etc.	√		Refer to 7-R.1
7-R.11	Cost Avoidance (actual versus estimate)	√		extrinsic
7-R.12	Ad hoc	√		Refer to 7-R.1

Receiving Requirements

Purchasing functionality requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
8-F.1	Purchase order must accept default data from the entity (agency) table: Agency name, address (for accounts payable), etc.	√		
8-F.2	Purchase order must accept default data from the buyer table: Buyer name, phone number, etc.	√		
8-F.3	Purchase order must accept default data from the vendor table: Vendor name, address, etc.	√		
8-F.4	Purchase order must accept default data from item table: Item description and price, vendor's item number, etc.	√		
8-F.5	Must be able to convert requisitions to purchase orders without re-keying, but must be able to change defaulted values.	√		
8-F.6	Must be able to integrate recorded vendor solicitation responses into purchase order: Price, terms, promised delivery date, discounts (payment & quantity), etc.	√		
8-F.7	Purchase order number must be assigned automatically from a user-defined range.	√		
8-F.8	Must be able to combine lines from multiple requisitions into a single purchase order to get economic advantages that may be available.	√		As delivered, Ariba 7.0 creates a single PO for each supplier on a fully approved requisition. Ariba does not currently have plans to provide an order aggregation process, although at least one Ariba customer has created a

Receiving Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
				custom process to do so, and can be developed specifically for NC during the implementation phase
8-F.9	Must be able to split a single requisition line into multiple purchase orders (split the order between two or more vendors).	√		
8-F.10	Must be able to check funds before releasing the purchase order, either by checking against the legacy system's available funds file, or by creating the same purchase order in the legacy system.	√		Please note comment on 6-F.1
8-F.11	Must encumber funds when purchase orders are created, either via a journal entry (to be reversed later) into the legacy system, or by creating the same purchase order in the legacy system (see 8-F10 above).	√		Please note comment on 6-F.1
8-F.12	Must be able to transmit purchase orders (catalog and non-catalog) electronically (web / e-mail / fax).	√		
8-F.13	Purchase orders must be fully integrated with receiving and accounts payable, so that the status of each line is adjusted with each receipt and payment.	√		For payment status Ariba will incorporate AP functionality into Ariba 8.0 (early Q4 2001). Should this requirement need to be fulfilled earlier, this work can be configured during implementation.
8-F.14	Must retain an audit trail of every purchase order update (add / change / delete / close / cancel), and must be able to pass each change as an update to the same purchase order in the legacy system.	√		

Receiving Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
8-F.15	Must notify buyer whenever a contract or blanket order nears expiration (by date, by dollars released or by quantity released).	√		Custom reporting could be developed during implementation to alert users to a dollar amount thresholds are approaching

Receiving Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
8-F.16	Must be able to prescribe a retainage amount or percent and pass that requirement to accounts payable to be applied at time of payment.	√		Ariba will incorporate AP functionality into Ariba 8.0 (early Q4 2001). Should this requirement need to be fulfilled earlier, this work can be configured during implementation.
8-F.17	Must be able to flag a purchasing transaction for evaluated receipt settlement (ERS) to be applied as payment upon receipt. This flag may default from the vendor table, but must be available for change by the buyer.	√		Ariba will incorporate AP functionality into Ariba 8.0 (early Q4 2001). Should this requirement need to be fulfilled earlier, this work can be configured during implementation.
8-F.18	Must allow buyer to indicate tolerances for receiving and payments, so that very minor discrepancies in quantities received and unit price do not produce exceptions during those functions.	√		
8-F.19	Must be able to calculate tax amount based on percent entered by the buyer.	√		Configurable through a standard API.
8-F.20	System should be able to prorate taxes, freight and any other additional cost associated with a purchasing transaction to designated lines of a purchase order, for purposes of encumbrance accounting and matching.	√		
8-F.21	Must be able to suspend processing temporarily, until buyer releases purchase order for distribution.	√		
8-F.22	System must be able to notify buyer whenever a purchase order is past due with no receipt.	√		

Receiving Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
8-F.23	In addition to item description, the buyer must be able to attach pictures, drawings and complete specifications to the purchase order line (including in the lowest technology available), which in turn can be passed to accounts payable for matching.	√		
8-F.24	System must be capable of processing each line of a purchase order independently. Therefore, each line must have its own ship-to address, accounting distribution, promise date, warehouse indicator, tax amount, freight amount, project code, etc.	√		As noted earlier, the freight component will be added during implementation.
8-F.25	System must allow a single purchase order line to be split to multiple accounting distributions and project codes.	√		
8-F.26	A buyer must be able to purchase goods with a different unit of measure than the one on the requisition line, and the system should be able to convert the quantities.	√		The buyer may alter the unit of measure however, as delivered, the solution will not convert it automatically.
8-F.27	Must have online view of status, such as quantities received and invoiced to date, closed and cancelled lines, etc.	√		
8-F.28	Must be able to see a history of line changes, cancellations, dates, etc.	√		
8-F.29	Must have system to retain PO history for period of time sufficient to satisfy state retention requirements.	√		

Receiving Requirements

Purchasing data requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	**NO**	**If no, please explain. Give date if you anticipate compliance in the future.**
8-D.1	Buyer identification	√		
8-D.2	Entity (agency/division) information	√		
8-D.3	Unique purchase order number (and change notice/reprint number, if applicable)	√		
8-D.4	Unique blanket release number and date	√		Please refer to comment in 4-F.11
8-D.5	Unique purchase order line number	√		
8-D.6	Item identification number	√		
8-D.7	Item description	√		
8-D.8	Commodity codes	√		
8-D.9	Vendor's manufacturer's item identification number	√		
8-D.10	Attachment (drawing, picture, etc.) file name	√		
8-D.11	Quantity (allowing at least two decimal places) **(This will cause interface problems with NCAS quantities, which allow no decimals)**	√		

Receiving Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
8-D.12	Units of measure (UOM) – allow for alternate units of measure or conversion	√		
8-D.13	Price per UOM	√		
8-D.14	Tax, freight & any other additional cost (total and per line), if applicable	√		As noted earlier, the freight component will be added during implementation.
8-D.15	Accounting distribution	√		
8-D.16	Project indicator	√		
8-D.17	Work order/job order number	√		
8-D.18	Ship-to address	√		
8-D.19	Ship-via instructions	√		Extrinsic
8-D.20	Shipping & freight terms (F.O.B.)	√		Extrinsic
8-D.21	Warehouse identifier (for legacy system warehouse transactions)	√		Extrinsic
8-D.22	HUB information (term contract, sole source, etc.)	√		
8-D.23	Future posting indicator (for items to be purchased with next year's funds)	√		Extrinsic

Receiving Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
8-D.24	Standard instructions (boiler plate)	√		Extrinsic
8-D.25	Vendor quotation indicator	√		Extrinsic
8-D.26	Date entered	√		
8-D.27	Date released/printed	√		
8-D.28	Due date (vendor's promised delivery date)	√		
8-D.29	Expedite / follow-up date (used for buyer notification)	√		
8-D.30	Blanket order expiration factors (date, quantity released, dollars released)	√		Please refer to comment in 4-F.11
8-D.31	Retainage percent	√		Extrinsic
8-D.32	Last updated date for header and lines	√		
8-D.33	Originating requisition number(s)	√		
8-D.34	Receiving tolerances	√		
8-D.35	Invoicing tolerances	√		
8-D.36	Recycled goods indicator (may default from item table)	√		Extrinsic

Receiving Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
8-D.37	Status (purchase order, receipt, invoicing, etc.)	√		
8-D.38	Calculated values for inquiry: Total purchase order value, extended line value, total number of PO lines, etc.	√		

Purchasing reporting requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
8-R.1	Buyer notification report (past due actions, expedite reminders, etc.)	√		
8-R.2	HUB reporting	√		
8-R.3	Recycled goods reporting	√		New reports can be created to support this specific requirement during implementation
8-R.4	Purchase order totals for goods and services	√		New reports can be created to support this specific requirement during implementation
8-R.5	Ad hoc reporting	√		

Receiving Requirements

Receiving functionality requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
9-F.1	Must be able to tie receipts to specific purchase order lines, and allow PO line information to default to receiving function.	√		
9-F.2	Must be able to record a receipt where shipping papers do not indicate the purchase order number for the shipment.	√		
9-F.3	Must be able to provide receiving information to accounts payable for matching and payment authorization purposes.	√		
9-F.4	Must be able to pass receiving information to legacy system inventory module to update on-hand and average cost values, and to the general ledger for asset balances.	√		
9-F.5	Must be able to enter partial receipts and update legacy system with each partial receipt.	√		
9-F.6	Must be able to change receipt information, record return of goods, or delete receipts, with a full audit trail of all transactions, and must pass each such transaction to the purchase order and to accounts payable (and legacy system inventory module).	√		
9-F.7	Must verify (audit) quantity received against PO line and notify receiver if quantity, due date or receipt location do not match within allowable tolerances.	√		
9-F.8	Must allow receiving in more than one unit of measure, in case a broken pack is partially returned or rejected.		√	The solution does provide the user with an extra screen when a rejection is made to input detailed information about the situation. The solution can be required

Receiving Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
				to specifically display the unit of measure if the State requires.
9-F.9	Receiving/shipping clerk must be able to place audit exception receipts on hold, pending clarification by the buyer. Held receipts should not update accounts payable.	√		
9-F.10	Must be able to reference multiple purchase orders with receipts on one packing slip.	√		
9-F.11	Must audit for duplicate receipts (by location, packing slip number, and PO line number).	√		
9-F.12	Must track location and receiver's identity.	√		
9-F.13	Must allow receipt inquiry by location, by receiver, by date, by item, etc.	√		Ariba 7.0 allows receivers to search by the following criteria: requisition number, on behalf of, ordered date, order id, order title, receipt date, receipt id, receipt status, status, and supplier name., location is currently not tracked however during implementation the solution can be configured to support this.
9-F.14	Must allow designated items to be routed for inspection before receiving is considered complete.	√		
9-F.15	Inspection process must allow items to be both accepted and rejected. System must be able to record station (inspection location) at which rejections occurred, dates of inspection, inspector identification, reasons for rejection, and disposition of	√		

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
	rejected materials (returned to vendor, scrapped, etc.).			
9-F.16	Partial inspections must be allowed and accumulated until all required inspections have been performed.	√		
9-F.17	Receiving and inspection history must be available on-line.	√		

Receiving data requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
9-D.1	Entity (agency/division) information	√		
9-D.2	Receipt location (ship-to on purchase order)	√		
9-D.3	Receiver identification	√		
9-D.4	Transit information	√		
9-D.5	Packing slip number	√		
9-D.6	Receipt date	√		

Receiving Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
9-D.7	Item identification	√		
9-D.8	Vendor's item identification (from shipping papers)	√		
9-D.9	Quantity received	√		
9-D.10	Unit of measure	√		As delivered, the solution assumes that the receiving unit of measure is equivalent to the ordering unit of measure
9-D.11	Delivery due date (vendor's promised delivery date – from PO line)	√		
9-D.12	Vendor identification	√		
9-D.13	Order contact (identification of requisitioner)	√		
9-D.14	Deliver to name (if different from requisitioner)	√		
9-D.15	Quantity returned	√		
9-D.16	Date returned	√		
9-D.17	Reason for return	√		
9-D.18	Status (partial, complete, awaiting inspection, on hold, etc.)	√		

Receiving Requirements

Number	Business Requirement	Can you comply with this requirement?		
		YES	NO	If no, please explain. Give date if you anticipate compliance in the future.
9-D.19	Reason for hold status	√		
9-D.20	Evaluated receipt settlement (ERS) indicator	√		Extrinsic
9-D.21	Inspection location(s)	√		Extrinsic
9-D.22	Inspector(s) identification	√		
9-D.23	Inspection(s) date and time	√		
9-D.24	Item/receipt inspected	√		
9-D.25	Quantity inspected	√		
9-D.26	Quantity passed	√		
9-D.27	Quantity failed	√		
9-D.28	Reason for failure	√		
9-D.29	Disposition of failed items	√		
9-D.30	Lot number	√		Extrinsic
9-D.31	Expiration date	√		Extrinsic

Receiving Requirements

Receiving reporting requirements:

Number	Business Requirement	Can you comply with this requirement?		
		YES	**NO**	**If no, please explain. Give date if you anticipate compliance in the future.**
9-R.1	Held receipts	√		
9-R.2	Past due receipts	√		
9-R.3	Inspection status	√		
9-R.4	Receipt exceptions	√		
9-R.5	Evaluated receipt settlement (ERS) receipts	√		New reports can be created to support this specific requirement during implementation
9-R.6	Ad hoc reporting	√		